INVESTIGATING THE OPERATING FACTORS INFLUENCING THE HIGH COST OF PRIVATE HEALTHCARE IN NAMIBIA: A CASE STUDY OF THE MEDICAL AID FUNDS INDUSTRY IN NAMIBIA

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DECLARATION

I Susanna Shivolo hereby declare that *Investigating the operating factors influencing the high cost of private healthcare in Namibia: A case study of the Medical Aid Funds industry in Namibia* is my own work and that this work, or part thereof has not been submitted for a degree in any other institution of higher education.

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DEDICATION

This thesis is dedicated to:

My Mother: Susana Ashikuni

My Grandmother: Hilya Naango Hango

For their patience, love and unwavering support and encouragement throughout my career and for valuing education so much even though they never had an opportunity to attend a classroom lesson themselves; for the academic foundation that they laid in me which has helped me to climb higher. It would have been difficult without such a firm academic base.

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ABSTRACT

This study investigated on the factors driving high cost in the private medical health providers in Namibia. The study sort seeks answers to the following questions (1) how has the trend in the Private Medical Aid Fund cost been during the period 2009 to 2013 (2) What are the factors contributing to annual increments in the Medical Aid Fund Premiums (3) Do increases in the Medical Aid Fund Premiums have impacts on access to Private healthcare in Namibia (4) What can be done to curb the increase cost of Private Medical Aid Funds in Namibia.

The researcher used a face to face interview which was administered to 25 medical aid personnel. A structured questionnaire was administered to 50 randomly selected members of the public including members of private medical aid funds.

The qualitative data was analyzed using Atlas.ti software which grouped the data into semantic codes and themes. The theoretical triangulation was used to interpret the data on the views and perceptions of the key informants. These views and perceptions were grouped into different themes related to the factors that drive the Medical Aid cost in Namibia. For the quantitative data analysis, the descriptive statistics were used to describe and synthesize the socio-demographic data. In fact, the categorical variables were summarized into frequency distributions and percentages; the continuous variables were summarized into central tendency parameters (mean, median, and mode) and the dispersion parameters (standard deviation, Interquartile).

Furthermore, the inferential statistics were used for the analysis of the factors driving the medical aid cost in Namibia. In fact, Pearson chi square test was used to test for the association between the different factors and the increase of Medical Aid cost. Correlation analysis was used to determine the trend and strength of statistical association between the pricing of medical aid premiums at different periods. A p-value of 0.05 or less will be deemed statistically significant.

Findings of this research study showed that there has been a general increase of both monthly medical aid premiums and the number of membership from the year 2009-2013. The study also unveiled that the main factor fueling the high cost of medical aid premiums is inflation and a general increase in the costs of medical services. It was recommended that the government of Namibia should introduce price control mechanisms to medical services' providers and Medical Aid Schemes. It should also reinforce the preventive programs and educate the Namibian general public to live healthy for them to keep their medical expenses low.

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CHAPTER 1: INTRODUCTION

This chapter gives an overview of the study with the following outlined topics: the orientation of the proposed study, the problem statement, objectives of the study, significance of the study and the limitations. The last part of this chapter presents the definition of the main terms used in the study followed by a summary of the chapter.

1.1 ORIENTATION OF THE STUDY

The World Health Organization has called all nations to adopt the Universal Health Coverage (UHC) concept. UHC requires that every human being across the globe receives quality healthcare services that meet their needs without exposing them to financial hardships in paying for such services (Dye, Reeder, & Terry, 2013).

 In line with global trends the Namibian government has, since independence prioritized health and has made commitment towards UHC. Namibia's Vision 2030 outlined a vision for a healthy nation where all preventable, infectious and parasitic diseases are under secure control and in which people have access to quality healthcare (Namibia Vision 2030, n.d.).

The National Development Plan (NDP4) is another intervention of the Namibian government's commitment towards quality healthcare for all. In NDP4, the government has pledged to ensure

that by 2017 Namibians will have equal access to quality health system, both in terms of prevention, cure, and rehabilitation (Ministry of Health and Social Services (MoHSS), 2013).

The healthcare system in Namibia is described as pluralistic and is made up of the Public Health Sector; the Private for Profit and the Private Not-for-Profit Sectors (Dye et al., 2013). It is estimated that public healthcare facilities caters for the majority of the Namibian nationals, mostly the unemployed and lower income-earning individuals, comprising of about 85% of the Namibian population (MOHSS, 2013). Private Medical Aid Funds represents the not-for-profit sector and contributes about 12.2% of the healthcare system in Namibia (Dye et al., 2013). This sector consist of nine (9) registered Private Medical Aid Funds; providing Medical Aid Benefits to approximately162,471 beneficiaries (Namibia Financial Institutions Supervisory Authority (NAMFISA), 2013).

Statistics by NAMFISA also indicate that the average contributions premiums charged by the Private Medical Aid Funds, in return for Medical coverage benefits, have increased by 54.4% from N$1,582 per member per month to N$2,440 per member per month during the period 2008 to 2012 (NAMFISA, 2013). On the other hand the industry size in terms of membership for these Funds only grew by 9.3% between 2008 and 2012. In comparison to the public sector, the premiums charged by the Public Service Employee Medical Aid Scheme (PSEMAS) ranged between N$120 and N$240 per member per month during the same period. However, PSEMAS is restricted to public servants only, therefore a large portion of the Namibian citizens are still without medical aid cover and have no access to quality healthcare services.   The status quo is

therefore considered to be hindering the effort by the Namibian government towards the provision of quality healthcare for all; and should it prevail the Universal Health Coverage may not be attained in Namibia in the near future.

The above trends imply that while the cost of private medical aid has increased significantly between the two periods, the industry size has increased at a relatively lower rate; implying that the high and increasing cost of private medical aid maybe inhibiting affordability and accessibility Private Medical Aid Benefits and in turn access to quality healthcare in Namibia (NAMFISA, 2013). This assumption is backed by the World Health Organization, which has outlined one of the major challenges facing the private health sector in Namibia as; limited access to this sector due to financial constraints experienced by the majority of the Namibian population (Dye et al., 2013).

The Namibia Private Practitioners Forum (NPPF) supports WHO's findings by stating that although the private healthcare in Namibia provide services that are of better quality than the public healthcare sector, these services are found to be more expensive and only accessible by a small number of affluent or employed beneficiaries, and the mass of the majority of the Namibians still have no access to these services (NPPF, 2011).

In South Africa, factors such as medical inflation, increased provider costs, competition with other schemes, claims history, projected claims, and demographic profiles of the scheme, administration costs, investment income, benefits utilization and existing solvency levels

contribute to the annual increments in medical aid contributions premium charged by the Medical Aid Schemes in South Africa (MASSA) (Still, 2013:p251). Still (2013) further indicated that the annual increases are considered necessary to enable the medical aid schemes to maintain positive annual financial results and in order to maintain the minimum statutory reserves requirements.

Regulations in Namibia requires Private Medical Aid Funds to maintain a minimum of 25% of annual contribution income in reserves at all times in order to be considered solvent (NAMFISA, 2013). The reserves level of the large open funds translate into millions of dollars in monetary terms, and given the non-profit nature of the Medical Aid Funds, one would expect Medical Aid Funds to utilize part of the reserves to curb the annual inflation-linked increments in the contribution premiums. Therefore, there may be a need to relax this regulatory requirement in order to relief members of Private Medical Aid Funds from paying exorbitantly high premiums. The study considers this factor as a possible solution towards containing high and escalating cost of private healthcare in Namibia.

In consideration of the above historic trends, and despite challenges observed within Namibia's healthcare system, the researcher could not find records of any formal study conducted to investigate what drives the high cost of Private Healthcare in Namibia. This study therefore strives to provide answers to the question: What drives the high cost of Private Healthcare cost in Namibia?

1.2 RESEARCH PROBLEM

Access to quality primary healthcare is vital for the well being of all citizens. Although the Government of the Republic of Namibia has made considerable commitments towards the provision of equal access to quality healthcare for all citizens through interventions such as the Vision 2030 and NDP4, the involvement of the Private Healthcare Sector in this regard has been minimal, and is evident in the low coverage by the Private Medical Aid Funds. Past records indicates that the public healthcare facilities in Namibia, whose service standards are questionable caters for about 85% of the population, mainly to the lower income groups and the unemployed, while the private healthcare facilities, which are perceived to be expensive and unaffordable by many, only cater for about 12% of the population, (Dye et al., 2013).   Statistics further indicates that there has been a significant increase in the cost of Private Medical Aid in Namibia in the recent past, while the growth in the number of beneficiaries of the Private medical aid funds has been very minimal (NAMFISA, 2013). The high and escalating Private Medical Aid Funds premiums are therefore deemed to inhibit the affordability and access to private medical aid cover, and in turn limit access to private healthcare. This assumption is contrary to the government's efforts towards quality healthcare for all, and hence a need to investigate what exactly leads to escalating cost of Private healthcare in Namibia and explore possible measures to contain and minimizing the escalating costs.

1.3 RESEARCH OBJECTIVES

The objectives are:

1. To describe the trend in Private Medical Aid Funds Premiums during the period 2009 to 2013;

2. To identify the factors leading to annual increases in the premiums charged by the Private Medical Aid Funds in Namibia;

3. To assess the impact of increases in Medical Aid Fund Premiums on access to private healthcare in Namibia.

4. To identify possible solutions to high private medical aid cost in Namibia

1.4 RESEARCH QUESTIONS

This study seeks to investigate what drives the high cost private healthcare in Namibia by analyzing the pricing of Private Medical Aid Funds in Namibia. The study will be directed by answering the following research questions:

i. How has the trend in the Private Medical Aid Fund cost been during the period 2009 to 2013?

ii. What are the factors contributing to annual increments in the Medical Aid Fund Premiums?

iii. Do increases in the Medical Aid Fund Premiums have impacts on access to Private healthcare in Namibia?

iv. What can be done to curb the increase cost of Private Medical Aid Funds in Namibia?

1.5 SIGNIFICANCE OF THE STUDY

The study reveals statistics and trends in the cost of Private Medical Aid in Namibia during the period 2009 to 2013. It further gathered information on the factors leading to high private healthcare cost in Namibia and on the utilization of private healthcare in Namibia via Private Medical Aid Schemes; which could be useful to other researchers who may want to conduct research on the private healthcare sector in Namibia. Such information could further be useful to the policy makers in their development of strategies aimed at improving the standards of living in the country through the provision of primary healthcare services in Namibia. Findings for this study may be used as basis for the justification of the medical aid payments made by members in the private sector.

1.6 STUDY LIMITATIONS

Various challenges were encountered in conducting this research. Firstly, the researcher is employed on full time basis, therefore could only work on the study after working hours and during weekends. This has not only prolonged the duration of the study but also posed challenges in collecting data as Medical Aid Funds offices do not operate on weekends. Therefore the researcher arranged with the medical aid personnel to collect data after hours.

Secondly, the study was limited by some key industry players' and Funds' reluctance to reveal information that constitutes primary research data, which they deemed to be confidential. Thirdly, unavailability of data for the period prior to the year 1990 has prevented the researcher to compare the trends in the cost of Private healthcare in Namibia between the current period and the period prior to independence.

1.7 OUTLINE OF THE STUDY

This study consists of five chapters.

Chapter 1 presented an introduction of the study in form orientation of the study, research problem, research objectives, research questions, significance of the study, limitation of the study and the conclusion, to prepare the reader for the next chapter.

Chapter 2 presents a comprehensive literature review which was divided into appropriate headings and sub-headings to give a broader theoretical knowledge on the subject.

Chapter 3 presents the methodologies followed in conducting the study, such as the research designs, targeted population, sampling methods, and the research instruments used to administer, collect, analyze and present data.

Chapter 4 makes a presentation of the research findings and data analysis. The data will be discussed and presented using tables, graph and various chart types.

Chapter 5 presents the conclusions and recommendations

1.8 DEFINITION OF KEY TERMS

A Medical Aid Fund ('the Fund') – a non-profit scheme set up for the purpose of pooling money from its members in exchange for health/medical coverage. It operates similarly to a trust and it is run by a Board of Trustees, who manages and looks after its well-being (solvency).

Monthly contribution premium – A monthly fee paid by the members of a Medical Aid Fund to the Fund to provide medical benefits coverage such us; paying doctor visits, hospitalization and medications.

1.9 SUMMARY

In this chapter, the researcher introduced the reader to the study by highlighting the background information on the health sector in Namibia as well the research problem. The study aims at identifying and exploring factors affecting the pricing/cost of Private Medical Aid funding in Namibia, and the objectives were clearly outlined. The significance of the study which spelt out the benefit of this study, were also discussed. The following chapter presents a review of literature on the subject of Private Healthcare.

CHAPTER 2: LITERATURE REVIEW

2.1   INTRODUCTION

The previous chapter highlighted the relevance of the study by presenting the background information on the health sector in Namibia. It further outlined the research problem, the objectives of the study as well as the benefit of this study.

This chapter provides information from the reviewed literature on the subject matter, and is divided into subheading to give a broad view on the subject. The figure below presents the schematic diagram of the chapter.

Figure 2.1: Schematic Diagram of the Conceptual Framework of the Study

What drives the high cost of Private Healthcare in Namibia?

Healthcare Sector Funding

-The Namibian Healthcare Sector

-Healthcare Funding in Namibia

-Trends in Healthcare expenditure

-Profile of the Namibian Medical Aid Funds Industry

-Opportunities & Challenges

Healthcare Cost Drivers

-Health inflation

-Benefit utilization

-Demographic factors

-Population ageing

-Improved technology

What could be done to contain the increasing cost of Private Healthcare?

-National Health Insurance

-Healthcare sector Regulation

-Public education

Schematic diagram of the Conceptual Framework used in this study

2.2   HEALTHCARE SECTOR FUNDING

The healthcare funding methodologies differ in different countries, but if combining the general taxation, social insurance, private insurance, out- of-pocket expenditure and in poorer countries, donor funding and most developed countries with the exception of US spend high level of public finance on healthcare (Still, 2013). Table 1 illustrates a framework of the different components of the healthcare sector under different types of health systems.

Table 2. 1 Components of the various healthcare systems

Health system	Type 1: Emergent	Type 2: Pluralistic	Type 3: Insurance/ Social Security	Type 4: National Health Service	Type 5: Socialized
General definition	Healthcare is an item of personal consumption	Healthcare is predominantly a consumer good or service	Healthcare as an insured/guaranteed consumer good or service	Healthcare as a stet-supported consumer good or service	Healthcare as a state-provided public service
Position of the physician	Sole entrepreneur	Sole entrepreneur and member of various groups/organizations	Sole entrepreneur and member of medical organizations	Sole entrepreneur and member f medical organizations	State employee and member of medical organizations
Role of professional associations	Powerful	Very strong	Fairly strong	Fairly strong	Weak or non-existent
Ownership of facilities	Private	Private and public	Private and public	Mostly public	Entirely public
Payments	Direct	Direct and indirect	Mostly direct	indirect	Entirely direct
Role of polity	Minimal	Residual/indirect	Central/indirect	Central/direct	Total
Prototypes	Russia, USA, Western Europe in the 19th Century	South Africa, Switzerland, USA in 20th century	Canada, France, Italy, Japan, Spain, Sweden, West Germany in the 20th	Australia, Great Britain in the 20th Century	Cuba, Eastern Europe, Soviet Russia in the 20th Century

Adapted from (Field, 1989)

2.2.1   The Namibian Healthcare Sector

The healthcare system in Namibia is described as pluralistic and is made up of the Public Health Sector; the Private for Profit and the Private Not-for-Profit Sectors (Dye et al., 2013). The public sector is the major financier of the healthcare system, contributing 54% of the Total Health Expenditure per capita (THE), followed by donors (22% of THE), private companies and households (12.2% of THE each). It is estimated that public healthcare facilities caters for the majority of the nationals, mostly the unemployed and lower income-earning individuals, comprising about 85% of the Namibian population. Private Medical Aid Funds represents the not-for-profit sector and contributes about 12.2% of the healthcare system in Namibia (Dye et al., 2013).

A study for the Namibia Private Sector Assessment conducted by the Strengthening Health Outcomes through the Private Sector (SHOPS) revealed that the value of the private health sector amounted to nearly N$1.3 billion in 2008-2009, equivalent to US $144 million (Project & Sector, 2012). The study further revealed that nearly 33% of private funds were spent in private-for-profit hospitals, followed by 25% in private dispensing chemists and 11% in private for-profit clinics. Moreover, about 17% of out-of-pocket levies and health insurance premiums were paid to a range of private providers at hospitals, clinics, and individual consultation rooms. Financial stability and excessive private healthcare services were highlighted in the study as the greatest challenges facing the nonprofit private health sector highlighted in the study.

2.2.2 Healthcare Funding in Namibia

Namibian healthcare system is funded through three main sources, namely; Government, Non-Governmental Organizations (NGO's) as well as Private healthcare (NPPF, 2011). The figure below illustrates an overall view of the healthcare funding in Namibia.

Figure 2. 2: Namibia's healthcare funding system
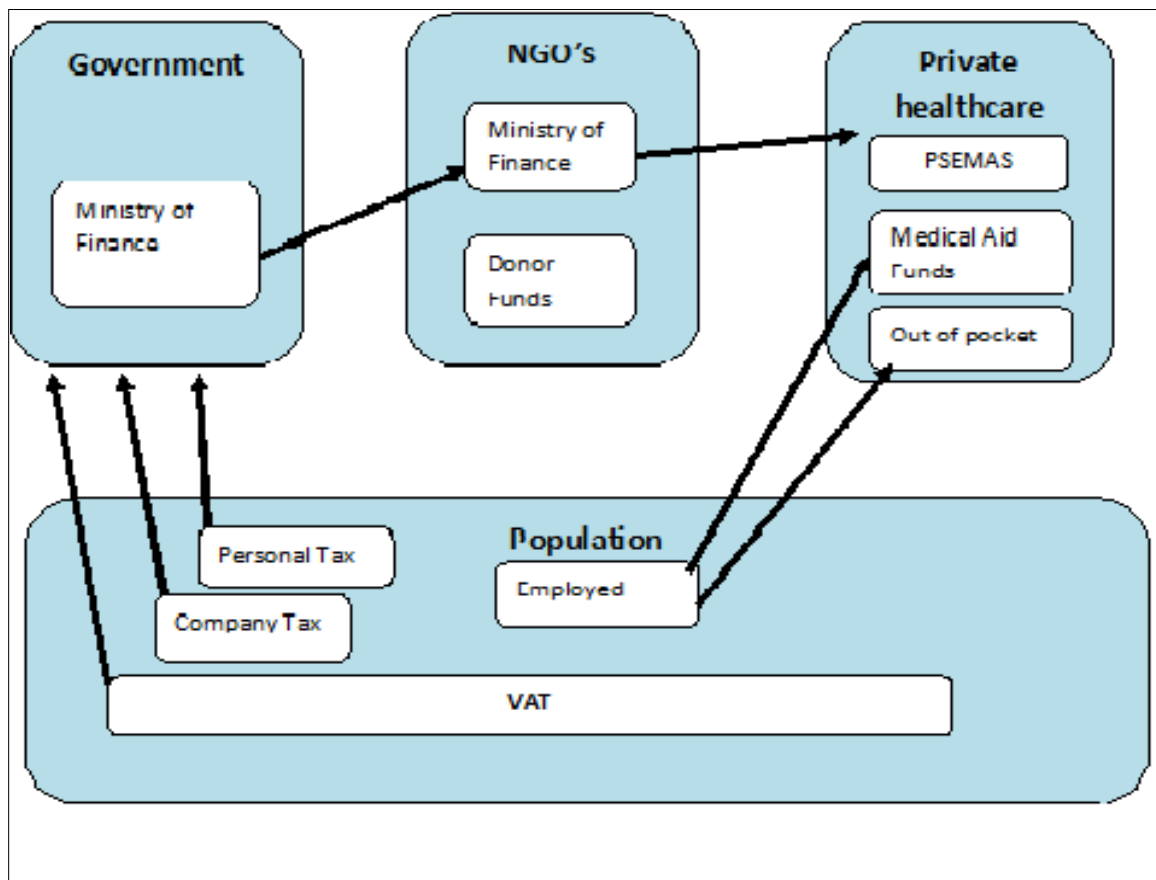
Adapted from (NPPF, 2011)

Majority of Namibia's population's healthcare services are funded through tax. Funds are made available through treasury and the Ministry of Finance and is used to run government's healthcare facilities and personnel. PSEMAS contributes a major part of private healthcare funding to ensure services by private Practitioners. NGO's provide a steady but limited service

and alleviate pressure on government institutions by delivering basic care for day to day ailments and diseases, especially care required for victims of HIV infections. Private healthcare is funded by a mix of out-of-pocket monies, medical aid contributions and funds made available through government's PSEMAS (NPPF, 2011).

2.2.3 Trends in Healthcare expenditure

Namibia spent approximately 61.17% of Namibia's Private Health expenditure on private insurance/ medical aid in 2013 (National Health Accounts (NHA), 2013). Figure 2.2 illustrates the trend in private health insurance as a percentage of the Private health expenditure for the past six years.

Figure 2. 3: Namibia's Private health insurance as a % of private health expenditure

	2008	2009	2010	2011	2012	2013
Namibia	61.2	61.24	61.2	61.2	61.17	61.17
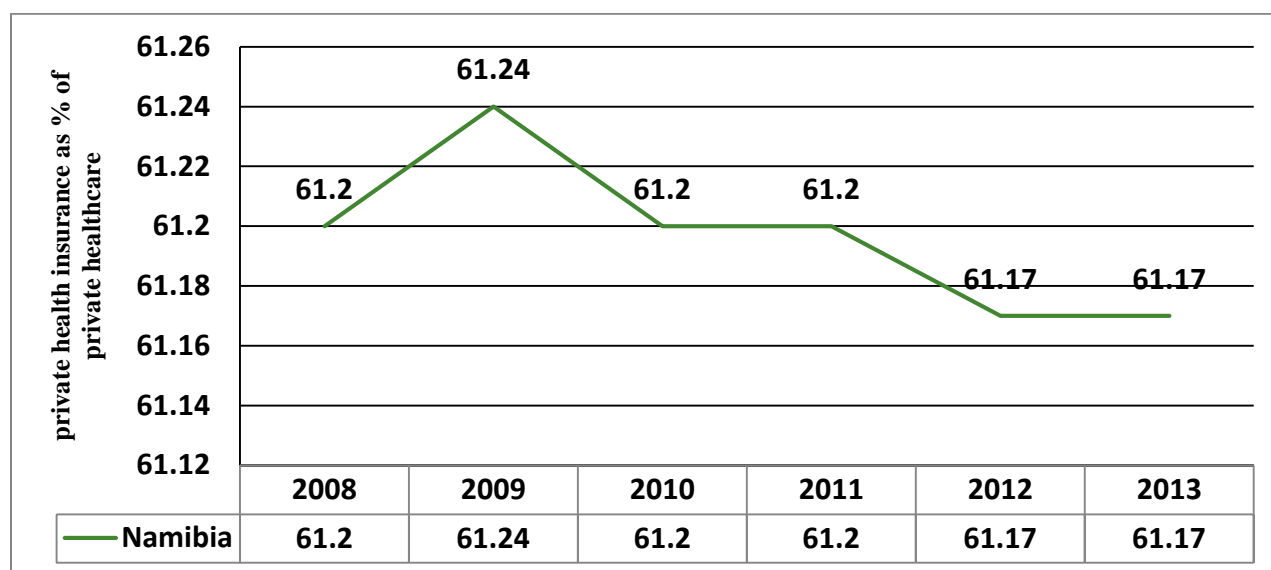
Adapted from (NHA, 2013) downloaded from www.knoema.com

2.2.4   Profile of Namibian Medical Aid Funds industry

Medical aid funds are in general defined as the 'not-for-profit entities", which operate like trusts and undertake liability on behalf of beneficiaries in return for a monthly contribution (Still, 2013). The Namibian legislation through the medical aid funds Act, No.23 of 1995 defines a medical aid fund as 'any business carried on under a scheme established with the object of providing financial or other assistance to members of the fund and their dependants in defraying expenditure incurred by them in connection with the rendering of any medical service, but does not include any such scheme which has been established in terms of an insurance policy' (NAMFISA, 2013:p34).   The day to day operations of the funds are managed by a Fund Administrator, contracted by the Fund at a monthly management fee agreed upon by the two parties.

The Medical Aid Funds industry in Namibia, representing the not-for-profit private healthcare sector comprises nine (9) registered Medical Aid Funds, four pen Funds and five Closed Funds (NAMFISA, 2013).   Open Medical Aid Funds are those that are open to the general public for membership, while closed Funds are exclusive to employees of a specific employer or employer group. In generally, by virtue of employment and depending on the employment terms, on may have to join a specific open fund only where an employer funds part of the monthly contribution and the employer only will enjoy some tax benefits.

According to NAMFISA annual report the industry size in terms of membership grew by 9.4% from 62,489 principal members as at 31 December 2008 to 68,389 members as at 31 December 2012, (NAMFISA, 2013:p56). This is illustrated in the table below.

Table 2. 2: Medical Aid Industry over the year

Period	Principal Members	Dependents	Pensioners	Total beneficiaries
2008	62,489	83,594	2,556	**148,639**
2009	63,647	81,783	3,360	**148,790**
2010	64,399	84,611	3,318	**152,328**
2011	66,579	88,777	3,394	**158,750**
2012	68,389	90,622	3,460	**162,471**
2013	73,794	96,769	4,715	**175,278**

Adapted from NAMFISA Annual Report (2013)

The Namibian Medical Aid Funds industry reported a consolidated gross contributions income if N$2.3 billion during the 2013 financial year (2012: 2.0 billion). The 15.7% increase was attributable to annual increases in members' contribution premiums as well as growth in membership. The increases in monthly contribution premiums approved by the Registrar of medical Aid Funds for the 2013 which ranged between 7.0% and 10.4% for the various Medical Aid Funds, (NAMFISA, 2013 :p96).

2.2.5   Namibian Health care Sector's Opportunities and Challenges

The following are some of the challenges affecting the Namibian healthcare sector (Project & Sector, 2012).

- Lack of platform for dialogue framework between the public and private sectors – the Ministry of Health and Social Services (MoHSS) occasionally sponsors consultation

meeting that permits the public and private sector to share information and discuss roles and responsibility, to which private sector is invited, but there is no forum;

- Limited public sector capacity for effectively engaging the private sector both MoHSS and the National Planning Commission has neither the staff nor capacity to engage the private sector. The capacity building is needed in evaluation of partnership, negotiation, legal documentation, and oversight; and

- Uncertain policy and regulatory regime supporting private sector engagement – although Namibia's policy and regulatory environment has by large supported the private provision of care, professional certification an facility licensing, larger policy issues such as the legal framework needed to form a public-private partnerships remain a challenge.

The study further recommended the following in addressing the aforementioned challenges:

- Government should foster dialogue between leaders and champions representing all sectors;

- Government should develop an institutional strategy that will build MoHSS capacity to engage private sector;

- Support dialogue should take place between MoHSS and private health insurers to explore the expansion of low-cost health insurance for the uninsured employed population and their dependants;

- Government should make health insurance mandatory either through private health insurance or by covering the uninsured through the Social Security Commission; and

- Private health providers, Non-Government Organization (NGO) groups and Medical Aid Funds should, through a consultative process, develop a short list of health indicators,

design a simple reporting format and establish an easy reporting system to make healthcare information available to the public.

2.3 HEALTHCARE COSTS

Bihari (2014) stated that healthcare cost is a composition of the members' health insurance/medical aid premiums, out-of-pocket expenses and co-payments (Bihari, 2014). A premium is a monthly fee payable to a health insurance company, medical aid fund or health plan to provide health coverage, including health-related services such as doctor visits, hospitalization and medication. Out-of-pocket expenses are fees payable for a health-related services above and beyond the monthly premium. While copayment is a flat fee, or set of amount that one may have to pay for specific health-related service.

2.4. DRIVERS OF PRIVATE HEALTHCARE COSTS

Healthcare cost been identified as a major factor affecting access to health coverage and the rising cost has led to more consumers go without health insurance/medical aid cover and those with cover are subjected insurances to higher premiums (MoHSS, 2013).

It is generally perceived that healthcare prices often rise due to increased spending on medical series by medical schemes or by patients, which in turn results into higher annual premiums for Medical Aid Scheme membership. However Erasmus & Fourie (2014) argued that Medical Aid Schemes Premiums are not solely driven by the cost of medical products and services but also by other factors such as burden of disease (people are becoming more sicker or have more than one

illness), salary inflation for medical service personnel, ageing of Private Medical Aid Scheme members, open enrollment of Medical Aid schemes, cost of prescribed minimum benefits, to mention but a few. Erasmus & Fourie further add that changes in regulatory requirements to the Medical Aid Schemes industry, the pharmaceutical industry and other related or supported industries, may also significantly impact health inflation and in turn Medical Schemes contribution increases.   On the other hand (Levin-Scherz, 2010) discovered that; Out-of control pricing, Too many Medical Specialists, Relatively small number of patients (cross payment-benefit subsidization), and Small Medical practices with Fractured care to be the major drivers of high healthcare costs in the United States.

Statistics indicate that Medical Schemes contribution premiums in South Africa have been increasing above CPI over the past few years, which is a source of concern (Erasmus & Fourie, 2014). They further indicated that in addition to health inflation, and healthcare provider price changes; price changes of non-healthcare expenses such as administration, benefit changes to Medical Scheme options, benefit utilization (claims history) expected utilization patterns (including demographic profile changes), and ageing of the fund are included when Medical Schemes contribution increases are calculated. Additional factors like reserves requirements or historic losses are also considered. It is therefore expected that the Medical Schemes contribu

tion increases to be much higher than health inflations.

2.4.1 Health inflation

Erasmus and Fourie (2014) argue that Medical Aid schemes contribution premiums are affected by a variety of determinants such as; Administration costs, benefit changes and changing utilization patterns, other than pure price changes of medical services or medical products. They further indicated in South Africa Health inflation in the CPI basket is divided into two; expenditure on medical products as well medical services, as illustrated on Figure 5 below.

Figure 2. 4: Medical products and services as components of South Africa's CPI Basket

Adapted from (Erasmus & Fourie, 2014: p7)

Medical services are further subdivided into out-patient services which comprised of consultation fees for private patients with or without medical aid and ultrasound for obstetrics for private patients. Based on the figures, hospital services account for a minor component of the South African CPI basket, due to the fact that majority of South Africa's population receives these services for free of charge (or at a subsided rate) from public hospitals.

2.4.2 Benefit Utilization

Benefit utilization is considered as one of the factor contributing to annual increases in Medical Aid/health insurance monthly premiums. The level of benefit utilization is measured as a percentage of total amount paid in benefits claims to the total amount contribution premiums received (claims ratio). The consolidated Namibia Medical Aid Funds Industry recorded a claim of 84.7% in 2013 (2012:85.3 %) (Bihari, 2014). Still (2013) postulated that the South African Medical Aid schemes spend about 80% of their income towards paying for medical benefits utilization (claims), and the remaining 20% towards administration and operational expenses (Still, 2013).

The above statistics were found to be in line with regional and global trends. In South Africa, according to the Council for Medical Schemes (CMS) 2015 Annual report, the total healthcare benefits paid by Medical schemes in claims amounted R111.8 billion in 2014 (2013: 100.7 billion) an increase of 11.1%. Hospital expenditure accounted for 41.6% of the total healthcare benefit claims paid in 2014, followed by Medicines and Medical Specialists with 14.5% and

6.7% respectively. Increases in medical scheme contribution premiums are therefore deemed necessary to cater for the increasing demand for medical aid benefits.

Wang et al. (2012) discovered that having a more comprehensive health insurance benefit design which covered both outpatient and inpatient services results into significant benefit utilization by lower-income members (Wang et al., 2012). Therefore, they suggested that the design of health insurance benefits is an important tool that can affect the health service utilization and socioeconomic equity in service use at difference levels, and without it health insurance may not benefit those who are most in need of financial protection from health services expenses.

2.4.3 Demographic factors

Ahn et al. (2011) discovered that the demographic characteristics of Medical Aid beneficiaries such as age, gender, marital status, education level, occupation, disability, pace of residents and health related quality of life are significantly associated with healthcare utilization among the beneficiaries of the Korean medical aid program (Ahn, et al., 2011). Older individuals, women, unemployed individuals, and those with higher education and disabilities were more likely to overuse healthcare services, as opposed to urban residence and those with health-related quality of life. They therefore suggested that understanding such factors may help to provide tailored case management services to improve the health-related quality of life of the beneficiaries and optimize their use of the healthcare services. Hence promoting appropriate use of healthcare services may enhance may enhance beneficiaries' quality of life and preserve resources for the other essential services for medical aid beneficiaries.

2.4.4 Population Ageing

Jourbert & Bradshaw (2006) define population ageing, or demographic ageing as a process by which the older population become a proportional larger component of the total population. They further indicated that having older persons implies increases in the prevalence of chronic diseases, disability and frailty which escalates the health care cost (Jourbert & Bradshaw, 2006).

According to (Coutaz, 2013) increased life expectancy, which reflects progress in living conditions, medical knowledge and technology, has given rise to an ageing of the population and thus increasing the number of older people requiring medical care.   As a result, the resources that modern sate devotes to healthcare are increasing, directly affecting the cost of health insurance premiums to members.

2.4.5 Improved technology

Still (2013) highlighted that improved technology in healthcare services can be a cost driver if unwisely used (Still, 2013). This was confirmed by (Schafer, 2014) who stated that Medical Aid consumers in Namibia are becoming more aware of unprecedented innovations in medical technology, pharmaceutical research and medical procedures resulting in more consumers receiving better, but more expensive healthcare services. There is therefore a need for health insurers/medical aid schemes and policy makers need to find ways of evaluating new technology to ensure that available resources are spent efficiently. Still (2013) further noted that one of the key initiatives in the United States to save on healthcare costs is the elimination of repeat scans, x-rays, blood tests and other diagnostic aids. In the past repeat tests were required as there was

no effective means of storing health records to be accessed by a range of medical professionals. It is therefore recommended that digital signature libraries be established where standardized health records can be stored for future use to minimize costs (Schafer, 2014). What remain unknown in this study are the drivers of the private healthcare cost in Namibia.

2.5 MITIGATION STRATEGY TO MINIMIZE THE ESCALATING COST OF PRIVATE HEALTHCARE

Levin-Scherz (2010) suggested the following strategies as possible measure towards minimizing the escalating healthcare costs: Increase competition and transparency in pricing among healthcare providers to help contain costs; give consumers responsibility for spend to lower comparable prices for elective services; having capitation arrangements between health insurance schemes and service providers which pay a set rate per patient regardless of services provided; as well as integration of smaller practices into multispecialty groups or delivery systems to improve communication and accountability (Levin-Scherz, (2010). Other strategies are as follows:

2.5.1 National Health Insurance

Various nations have adopted the concept by developing National Health Schemes to increase healthcare coverage and tackle health funding issues. The Namibia Social Security Commission (SSC) is mandated by the by the Social Security Act 34 of 1994 to establish a National Medical Benefit Fund (Dye et al., 2013). In September 2011, the SSC hosted a stakeholders' consultative workshop aimed at exploring health insurance models and available alternatives suitable to the

Namibia context and learn from experiences other countries such as Ethiopia, Ghana, Nigeria and South Africa. A committee named Namibia National Health Insurance and Finance Technical Committee (HIFTAC) was established to serve as an advisory committee to the SSC Board on issues related to the development of a National Health insurance Scheme in Namibia.

Ghana's example

Ghana created a National Health Insurance Scheme (NHIS) in 2003 by the government of Ghana with the objective to increase access to formal health care sector through health insurance by increasing affordability and utilization of drugs and health services in general, and among the poor and most vulnerable populations. In particular (Blanchet, Fink, & Osei-Akoto, 2009) noted that the scheme is open to all persons residing in Ghana other than members of the Armed Forces of Ghana. NHIS is financed from four main sources which are; a value-added tax on goods and services, an earmarked portion of social security taxes from formal sector workers, individual premiums and miscellaneous funds from investment returns, parliament an donors. 70% of the funds is derived from derived from value-added tax on goods and services, followed by Social Security taxes (23%), while premiums and other funds contributes 5% and 2% respectively, (Blanchet, Fink, & Osei-Akoto, 2009). Subsequently a National Health Insurance Authority (NHIA) was commissioned to secure the implementation of a national insurance policy that ensures access to basic healthcare series to all residents. The scheme covers outpatient services, including diagnostic testing and operations such as hernia repair; most in-patient services, including specialist care, most surgeries, and hospital accommodation (general ward), oral health treatments; all maternity services, including Caesarean deliveries; emergency care; and al drugs on the centrally established NHIA Medicines list.

Furthers studies have revealed NHIS to be a success in Ghana in addressing access to healthcare, and as a result of NHIS the number of outpatient visits per capita in Ghana has increased sharply after 2005, the same year NHIS was implemented, Witter & Garshong, 2009. Blanchet, Fink, & Osei-Akoto (2009) further supported that the NHIS's goal of improving access to health care has been achieved and on average individuals enrolled in the insurance scheme are significantly more likely to obtain prescriptions, visit clinics and seek formal healthcare when sick (Blanchet, Fink, & Osei-Akoto, 2009).

Nigerian Example

In Nigeria, A National Health Insurance Scheme was established by the Nigerian government under Act 35 of 1999 with the aim to improve access to healthcare and reduce financial burden of out-of-pocket payment for health care services (Osuchukwu, Osonwa, Eko, Uwanede, Abeshi & Offiong, 2013). The scheme is based on a prepayment system where both the employer and employee make contributions to the scheme and the employee accesses the scheme whenever medical services are required. Within six years of implementation the scheme claimed to have recorded several success, amongst which is a high number of enroll (over 5 million enrollees) accessing care though the scheme (Olanrewaju et al., 2011). The Nigerian NHIS is however experiencing a number of challenges such as inadequate coverage (i.e. informal sector and unemployed not covered), low quality of health care services, high cost of premium charges to the enrollees, low level of awareness about the scheme and lack of health facilities to facilitate take off of the scheme in rural areas (Osuchukwu et al., 2013). They have therefore has suggested the following intervention from the Nigerian government to ensure successful implementation of the Scheme:

-create optimal awareness and education on NHIS to all citizens to trigger and increase the number of enrollees on the scheme;

-improve healthcare services to increase the satisfactory level among the enrollees;

-reform the NHIS policy to gain wider coverage and ensure equity accessibility to health services especially among the poor and vulnerable citizens; and-minimize mistrust and improve uptake and service delivery through establishment of functional structures of arbitration which will ensure constant engagement between the scheme management, health care providers and enrollees.

2.5.2 Healthcare Sector Regulation

National health policies, strategies, and plans play an essential role in defining a country's vision, priorities, budgetary decisions and course of action for improving and maintaining the health of its people. Most countries have been using the development of national health policies, strategies, and plans for decades to give direction and coherence to their efforts to improve health. Private medical provision is an important component of healthcare delivery globally therefore it is essential for a country to have effective regulatory system in place in order to influence the behavior of private healthcare providers.

Greb and Wasem (2008) emphasizes on the need to regulate private insurance programs to be of utmost important because an unregulated market will not guarantee that individuals who are not entitled to the public system will receive adequate insurance coverage (Greb &Wasem, 2008). They have further suggested a mandatory open enrollment, prohibition of pre-existing condition

limitations and premium rate restrictions as importation tools to increase access to private health insurance program. However, regulation also creates new incentives for adverse selection and might produce problems of unequal risk distribution and incentives for risk selection between competing health insurers (Schafer, 2014)

2.5.3 Public education on health care costs

Schafer (2014) has outlined members' education as one of the means to curb the rising health care costs (Schafer, 2014). He further highlighted that a better informed Namibian Medial Aid or Health Insurer's pool will accept and accommodate possible alternative reimbursement models more positively and as a result members will reduce large-copayment and out-of-pocket expenses they carry while healthcare professionals will become co-implementers of the reimbursement models. Though all the above mitigation strategies have been highlighted and though they might have proved effective in some settings we remain unsure of whether the same strategies will also work in the Namibian medical health contexts.

2.6 SUMMARY

This chapter presented the conceptual framework of the study followed by a comprehensive review of literature on the healthcare system of Namibia. It further used literature to elaborate on issues related to trends in the healthcare expenditure, heath care costs, and the drivers of the hearth care costs. Finally the chapter discussed the possible mitigation strategies to curb the escalating cost of the private medical aid monthly premiums.

CHAPTER 3: RESEARCH METHODOLOGY

3.1   INTRODUCTION

The previous chapter presented the conceptual framework of the study followed by a comprehensive review of literature on the healthcare system of Namibia. It further elaborated on issues related to trends in the healthcare expenditure, heath care costs, and the drivers of the hearth care costs. The last part of the chapter discussed the possible mitigation strategies to curb the escalating cost of the private medical aid monthly premiums.

This chapter focuses on the various tools used in gathering the relevant information and on the methodology of the study.

3.2   RESEARCH DESIGN

The research design is defined as an outline, plan or strategy used in the research to seek an answer to the research problem (Johnson & Christensen, 2004). The study followed a combination of both quantitative and qualitative research approach (mixed method) and employed both primary and secondary data. This mixed methods approach enabled the researcher to base knowledge claims on pragmatic grounds (Creswell, 2003). The mixed method paradigm also attempts to get in the middle of the two other approaches (quantitative and qualitative), seeking to respect both by using both in a research study. (Johnson & Onwuegbuzie, 2004) further stated that mixed methods research is, generally speaking, an approach to knowledge (theory and practice) that attempts to consider multiple viewpoints, perspectives, positions, and standpoints (always including the standpoints of qualitative and quantitative research).

(Creswell, 2012) identifies two different types of mixed method designs as: convergent parallel design, where both qualitative and quantitative data is collected at the same time and the results are analyzed, compared and interpreted concurrently. Then there is the explanatory sequential design where either the qualitative results are collected first and then analyzed, and this builds up to the quantitative results or vice versa, with the purpose of interpreting the variations between the two. This study adopted the convergent parallel design since both the qualitative and quantitative data are collected, analyzed and findings compared concurrently.

There are four worldviews within which a study can be located, and these are: the post positivist worldview where the researcher intends to verify an already existing theory, the pragmatic worldview where the researcher is dealing with real-world practice, the constructivist worldview and the participatory world view where the researcher intends to bring a change in a system based on his findings (Cresswell, 2012). This study adopted the participatory world view by virtue of the fact that researcher intended to change or improve on the current situation of the drivers of the healthcare costs so that such drivers can be controlled in the best interest of the medical aid clients.

The qualitative dimension of a research approach allows the researcher through the use of the interviews, conversations, field notes, recordings and photographs to observe, interpret and make sense of participants engagement/behavior/ responses towards a phenomenon under consideration in a given natural setting (Denzin & Linkoln, 2005). In other words, the qualitative aspect of a research study places the individual at the centre as it focuses on investigating,

discovering meaning and explaining particular phenomenon through the experiences and /or perspectives of the participants. In the case of the current study, a questionnaire with open ended questions was used and face to face interviews were used to capture the clients' perceptions on the factors driving the healthcare cost in the private medical aid systems. In a qualitative research methodology the language of the subjects is important since the actual words of the subjects' experiences are critical in conveying the meanings and systems of the participants, which will ultimately become the findings of the research (Christensen, Johnson & Turner, 2010). In other words, whatever the participants say during the face –to face- interviews is crucial since it necessitates the discovery of whatever is important and valued by the participants under study. However, the qualitative research methodology has the disadvantage that its findings cannot be generalized to other contexts.

(Johnson & Onwuegbuzie, 2004) encourage a broad interpretation of "methods" in mixed methods research to allow for "inclusion of issues and strategies surrounding methods of data collection (e.g. questionnaires, interviews, observations), methods of research (e.g. experiments, ethnography), and related philosophical issues (e.g., ontology, epistemology, axiology). Mixed methods research is a systematic integration of quantitative and qualitative methods in a single study for purposes of obtaining a fuller picture and deeper understanding of a phenomenon. Mixed methods can be integrated in such a way that qualitative and quantitative methods retain their original structures and procedures (pure form mixed methods) (Onwuegbuzie & Johnson, 2004). Alternatively, these two methods can be adapted, altered, or synthesized to fit the research and cost situations of the study (modified form mixed methods). Mixed methods research is also an attempt to legitimate the use of multiple approaches in answering research questions, rather

than restricting or constraining researchers' choices (i.e., it rejects dogmatism). It is an expansive and creative form of research, not a limiting form of research (Cresswell, 2012). It is inclusive, pluralistic, and complementary, and it suggests that researchers take an eclectic approach to method selection and the thinking about and conduct of research.

3.2.1 The qualitative research approach

The first part of the research focused on analyzing views, opinions and perceptions on what is deemed to be the contributing factors to high cost of private healthcare in Namibia and on the possible solution to curb the high and escalating cost of private Medical Aid cover Namibia. This information was gathered from the general public including members of Private Medical Aid Funds; and from key informants within the Medical Aid Funds industry. The following data was collected, through face to face interview by means of a structured questionnaire:

- Opinion on what factors contribute to annual increases in the private medical aid premiums;

- Opinion on what limits the accessibility to private healthcare in Namibia;

- Opinions on how increases in medical aid premium impact access to private healthcare;

- Recommendations on how the escalating price of private medical aid may be curbed; and

- Recommendations on how to make private medical aid benefits accessible to all.

Cohen, Manion and Morrison (2007) stated that qualitative research allows the researcher to gain an in depth understanding of the participants' experiences of the phenomenon. The researcher's decision to use the qualitative research methods for collecting data for inquiry stemmed from the

nature of the research questions (see 1.4.), where the phrase "Opinions and factors" are key words (Cohen, Manion & Morrison 2007). This implies that the researcher was also interested in analyzing the views and perceptions of the key players in the Medical Aid industry.

3.2.2   The quantitative research approach

The second part of the study focused on examining and establishing the trend and the extent of the increment in the Private Medical Aid contribution premiums during the period 2009 to 2013. Primary data gathered consisted of historic monthly contribution premiums paid by the members of the private medical aid funds during the period 2009 to 2013.

Secondly, the study attempts to describe what drives the high and escalating cost of private healthcare in Namibia by analyzing the factors taken into consideration when determining the Private Medical Aid monthly premiums; and by analyzing the different types of claims (claims typology) paid by the Medical Aid Funds on behalf of the members during the period under study. Primary data was collected consisted of:

- **Determinants of the annual increments in the contribution premiums**. These are the factors taken into consideration in computing the annual percentage increase in the Private Medical Aid Funds' contribution premiums.

- **Historic Annual Claims Typologies**. This information was used to determine the level of **utilization** of benefits and establish the major claims Medical Aid Benefits utilized by the members of the Funds during each specific year for the period under study.

3.3   POPULATION

The study was conducted primarily on the Medical Aid Funds industry consisting of 9 registered Medical Aid Funds. In the quantitative part of the study, all 9 funds constituted the population.

The qualitative part of the study was targeted at the key industry informants as well as the general public including. The key industry informant consisted of persons with influential roles within the Medical Aid Fund industry and was made up of; Principal Officers of the Funds, representatives of Fund administrators, Fund Actuaries, the Namibia Association of Medical Aid Funds (NAMAF), the Regulator of Medical Aid Funds, the Ministries of Finance and Ministry of Health and Social Services as well the Socio-Economic Commission of the Parliament of the Republic of Namibia.

3.4 SAMPLE AND SAMPLING STRATEGY

According to (Babbie et al., 2001) sampling is defined as the process of selecting observations. Specific sampling techniques allow researchers to determine and /or control the likelihood of specific individuals being selected for study. Sampling provides a valid alternative to a census when:

- It would be impractical to survey the entire population;
- Budget constraints would prevent one from surveying the entire population; and
- Time constraints would prevent one from surveying the entire population.

In the quantitative part of the study a representative randomly selected sample of 50 respondents was used. This sample comprises of the registered paid-up members of all 9 Private Medical Aid

Funds in Namibia, and was randomly chosen from each fund by means of a purposeful stratified probability sampling method, in which each unit in the population has a known chance of being selected (Babbie et al., 2001). One of the advantages of probability sampling strategies is to keep sampling errors to a minimum and to make sure that all participants have equal chances of being selected.

For the qualitative part of the study, a sample of 25 respondents was randomly selected to represent key industry informants. This sample was selected following a purposive non-probability sampling. Purposive non-probability can be defined as a sampling method that is purposive in nature and is targeting a specific predefined group of respondents (Trochim, 2000). An expert sampling subcategory of purposive method was utilized, which involves assembling of persons with known or demonstrable experience and expertise in some area. The researcher believes this was the best way to elicit relevant views of people with expertise in Private Medical Aid/Private healthcare matters. A representative was chosen for each entity, and a person holding the highest employment rank was considered, for example the Managing Director of the Fund Administrator. A structured open-ended face- to- face interview was administered to 25 purposefully selected participants.

3.5. RESEARCH INSTRUMENTS

The relied on both primary and to some extent secondary data sources that are relevant to explore the research questions The researcher collected data by means of the following instruments:

3.5.1   Self-administered data collection sheet

A standard data collection tool was developed to collect primary data from all nine registered Medical Aid Funds, consisting of members monthly contributions for the period 2009 to 2013. This information was used to describe the trend in the cost of Private Medical Aid Funds for the period under study.

3.5.2   Questionnaires

Opinion from the general public was gathered through self-administered questionnaires. A questionnaire is simply a 'tool' for collecting and recording information about a particular issue of interest (Harry, 2013).The use of self-administered questionnaires as data collection instruments for this study has several advantages. Questionnaires can be completed by several participants in very little time and are highly targeted and also affordable and apart from that, the main cost incurred is the cost of printing and distributing. The first part of the questionnaire for this study provided the students' demographic information. The second part elicited the participants' opinions on the factors influencing increases in medical aids funds. The third part of the questionnaire explored the participants' recommendations various strategies that's could be used to mitigate on the increases in medical aid subscription funds. Questionnaires were found suitable to elicit information about the affordability and access to private healthcare in Namibia, as well as to gather opinion on the possible solution to curb the rising costs of private healthcare in Namibia.

Closed questions on the questionnaire were coded to enhance data analysis using Statistical Package for Social Sciences (SPSS). In order to ensure consistency in attribute measurement and to be quite sure that every change noted was observable and not due to the measurement process, the questionnaire was tested for its reliability attribute. The questionnaire was piloted on 10 members utilizing the Public Service Medical Aids (PSEMAS). The issues of validity and reliability with regard to the questionnaire will be discussed in section 3.8.

The researcher acknowledges that the use of questionnaires as a data collection instrument has several disadvantages. One of the disadvantages of using the questionnaires is that the body language of the respondent cannot be observed as the respondent cannot be seen. The questions can be misunderstood by the respondents which may require a lot of time to clarify them (Harry, 2013). However, the administered pilot study helped the researcher to simplify any double-barreled questions.

The content validity of the questionnaire was determined by submitting questionnaire samples to two colleagues who are specialist business administration lecturers from the University of Namibia for them to see if the prepared questionnaire had all the necessary information needed to complete this study.

3.5.3 Interviews

Interviews were conducted with key industry informants' consisting of industry representatives and Medical personnel within the Medical Aid funds Industry. Questions in the interviews covered opinions on the current level utilization of Medical Aid Benefits, trends in cost of Medical Aid; accessibility and affordability of medical Aid cover; factors contributing to high cost private healthcare in Namibia as well as opinions on what could be done to minimize the escalating cost of Private Medical Aid. The information gathered through interviews was used to formulate opinion on the driving factors of Private Medical Aid costs and on the possible solutions to contain them. One of the main objectives of this study was to find out how the escalating costs are affecting the medical aid subscribers of the private sector.

3.5.4 Secondary sources of data

The researcher reviewed conference proceedings, journals, books and press articles on the subject of Medical Aid Funds Industry and private healthcare in Namibia. Other published works especially from developing countries, the World Health Organization (WHO), Health policy journal were further used to compare findings of prior studies conducted on the subject matter.

3.6 ADMINISTRATION OF QUESTIONNAIRES AND INTERVIEWS

Questionnaires targeted at the general public including members of medical Aid Funds were designed short and precise to ensure accurate interpretation of the questions by the participants. They contained both open and close-ended questions and were distributed to the general public within the City of Windhoek, Oshakati and Ongwediva. These towns were considered to host a

vast diversity of Namibians and that a sample would be a true representation of the general public. Questionnaires were distributed in March and were completed and returned instantly in the presence of the researcher to provide further clarity where necessary.

3.7 PILOT STUDY

Christensen, Johnson, & Turner (2010) defines a pilot study as a feasibility study undertaken prior to the actual study to see if the study is doable. A pilot study was conducted to test the validity and relevance of the research instruments, to detect possible flaws and identify any unclear ambiguity in the content. Five randomly selected participants from this PSEMAS participated in the study. Based on the results of the pilot study, double barrelled and ambiguous questions were restructured.

3.8 DATA COLLECTION PROCEDURE

As alluded to earlier:

- Primary data collected from the Private Medical Aid Funds consisting of members' monthly contributions were used to describe trends in the cost of private healthcare in Namibia during the period 2009 to 2013;

- To determine what drives the cost of private healthcare in Namibia, the study gathered data from the Funds consisting of the factors taken into consideration in computing annual increases in the monthly members' contribution premiums; and

- To determine what is deemed to contribute to high and escalating cost of private healthcare in Namibia and the possible solution to contain cost, opinions were gathered from the key industry informants.

Information gathered from the above formed the basis of the research findings and results and further used to draw conclusions and recommendations.

3.9 DATA ANALYSIS

The study used both quantitative and qualitative approaches to analyze the data.

3.9.1 Quantitative data analysis

The Statistical Package for Social Sciences (SPSS) was used to compute the descriptive statistics of the study findings. Descriptive statistics were performed in order to establish and describe the trend in the medical aid costs for the period 2009 to 2013 and describe different parameters or characteristics of Medical Aid Costs. The analysis was done as follow:

- A descriptive statistics for categorical and continuous variables was used by means of the frequency distributions, percentages for categorical variables. While the maximum and minimum values, the central tendency parameters (mean, median, mode), the dispersion parameters (standard deviation, Interquartile) was used for continuous variables (Cresswell, 2012).
- A regression analysis - multiple regressions was used to determine strength of statistical association between different variables (pricing of medical aid premiums and other factors).

- For categorical variables, Pearson chi square test was used to test for the association between the drivers of Medical Aid cost. Fisher's exact test was used for comparison of different specifics groups. A p-value of 0.05 or less was deemed statistically significant. was evaluated with binary logistic regression.

3.9.2 Qualitative data analysis

Atlas ti software which grouped the data into semantic codes and themes was used. The theoretical triangulation was used to interpret the data on the views and perceptions of the key informants. These views and perceptions were grouped into different themes related to the factors that drive the Medical Aid cost in Namibia.

3.10 VALIDITY AND RELIABILITY

In terms of validity, the measuring instrument was given to the supervisor and subject experts for inputs. This is done to ensure that the instrument measure what the researcher intend to measure (Baker, 2000). Despite the pilot study conducted prior to actual data collection, reliability test was conducted on the instrument and a Cronbach's alpha value of 0.81 was obtained which showed high levels of reliability. Reliability is concerned with the findings of the research and specifically relates to the credibility of the questions and potential findings (Welman, Kruger & Mitchell, 2005: p145). Furthermore, (Marshall & Rossman, 2000) stresses that reliability occurs when the instrument measures the same thing more than once and yield the same results and once this is achieved, it means that the instrument is consistent with what needs to be measured.

3.11 RESEARCH ETHICS

It is imperative to note that, a research may invade certain ethical concerns, such as privacy, confidentiality, and consent. The purpose of the study was clearly explained to all participants, and where necessary, approval to obtain information will be sought from senior management of the entity involved. The researcher undertook to maintain confidentiality of the information gathered obtained from the Medical Aid Funds and respondents. A confidentiality clause was also included in all questionnaires distributed to the respondents. The researcher further undertook not to publish the findings of the researcher without prior approval from the respondents. Furthermore also the details about the respondents were kept in safe and secure place such that no access could be gained by unauthorised persons. The captured data was kept in the researchers' personal computer which was password protected. Questionnaire sheets were kept in the researcher's file cabinet which is always locked.

3.12 SUMMARY

This chapter presented a description of the methodologies (paradigms, research designs, research methods, instruments and sampling procedures) which were used in collecting and analyzing the data for this study. It also gave the context and purpose of the study, research designs and justification to their implementation. This chapter also presented the definition of the population and samples which were used in the study, sampling procedures and data collecting procedures. This chapter also gave highlights on data analysis procedures, data collection procedures and instrumental administration matters and issues of validity and reliability. Finally this chapter presented issues on consideration of ethical matters.

CHAPTER 4: PRESENTATION OF RESULTS

4.1 INTRODCTION

The previous chapter of the study presented the methodologies used in collecting and analyzing the data such as the paradigms, research designs, research methods, instruments and sampling procedures. It also presented the definition of the population and samples which were used in the study, sampling procedures and data collecting procedures.

This chapter focuses on the presentation, analysis and discussion of the results. The results are presented in different formats such tables, graphs and descriptive narration. The chapter is sub-divided into the following sections:

- Demographic information

- Trend Analysis of the Medical Aid cost

- Factors driving the annual increases in Medical Aid cost

- The impact of Medical Aid Premium increases on public access to Medical Aid Benefits

- The industry's opinion on the mitigation measures to curb the high and escalating cost of Medical Aid in Namibia

4.2 DEMOGRAPHIC INFORMATION

In the first part of this section, the results presented are about the general characteristics of the respondents, which is the general public including member of Medical Aid Funds. A total of 50 respondents were sourced and the results are presented hereunder.

4.2.1. Gender of the participating members

The figure below illustrates the gender distribution of the participants representing members of the Medical Aid Funds in Namibia.
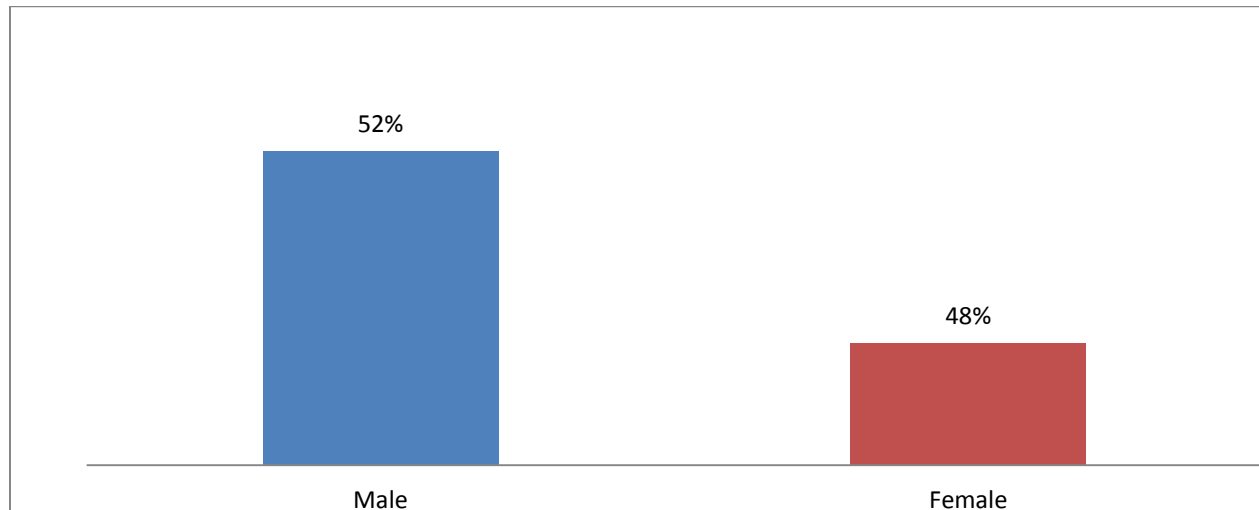
Figure 5: Gender distributions of the participants

The results depict that 52% (n=26) of the public belonging to a Medical Aid Funds and engaged in this study were male while 48.9% (n=24) were female. This is contradictory to Ahn et al. (2011) finding who indicates that females are most likely to belong to a Medical Aid Fund than males. However in reality is that men are generally perceived to be heads of family and are expected to carry the medical aid responsibility for their family than women.

4.2.2 Age groups of the participating members

The study also elicited the ages of all the participating members. Figure 7 below presents the results.
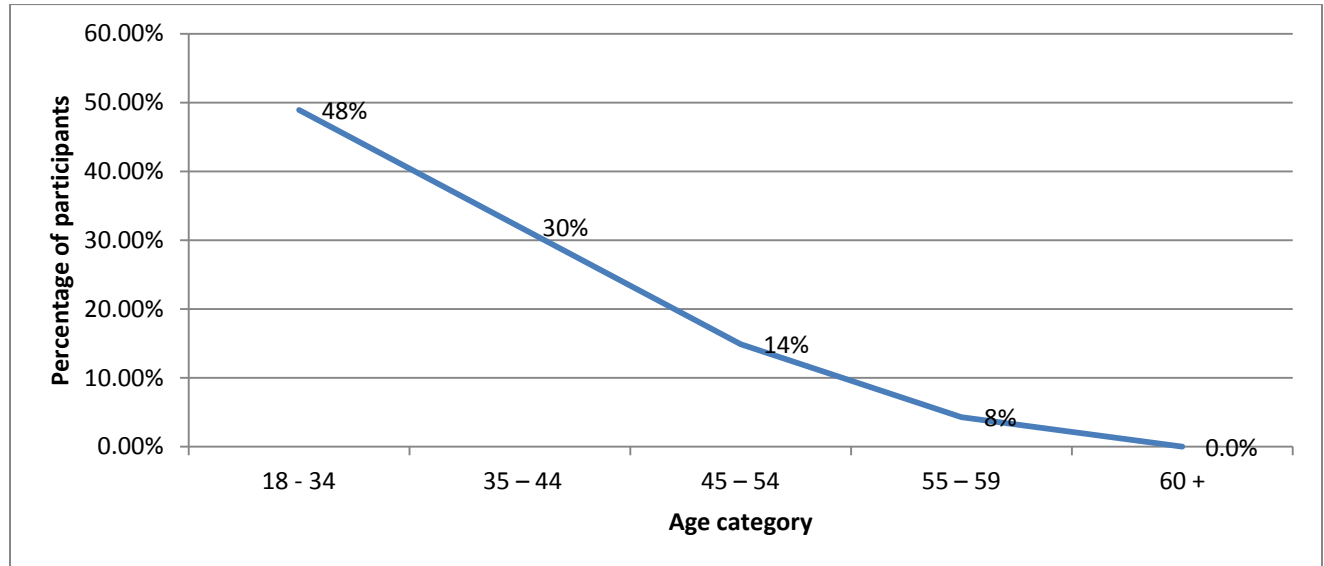
Figure 6: Age distribution of the participants

Figure 6 indicates that 48% (n=24) of the respondents were between the ages of 18 to 34 years. It further indicates that 30% (n=15) aged between 35-44 years, 14.9% (n=7) were aged between 45-54 years and 8% (n=4) were between the ages of 55-59 year.

4.2.3 Educational Qualifications of the members

The study also unveiled the educational qualifications of the participants. Figure 7 below presents results.
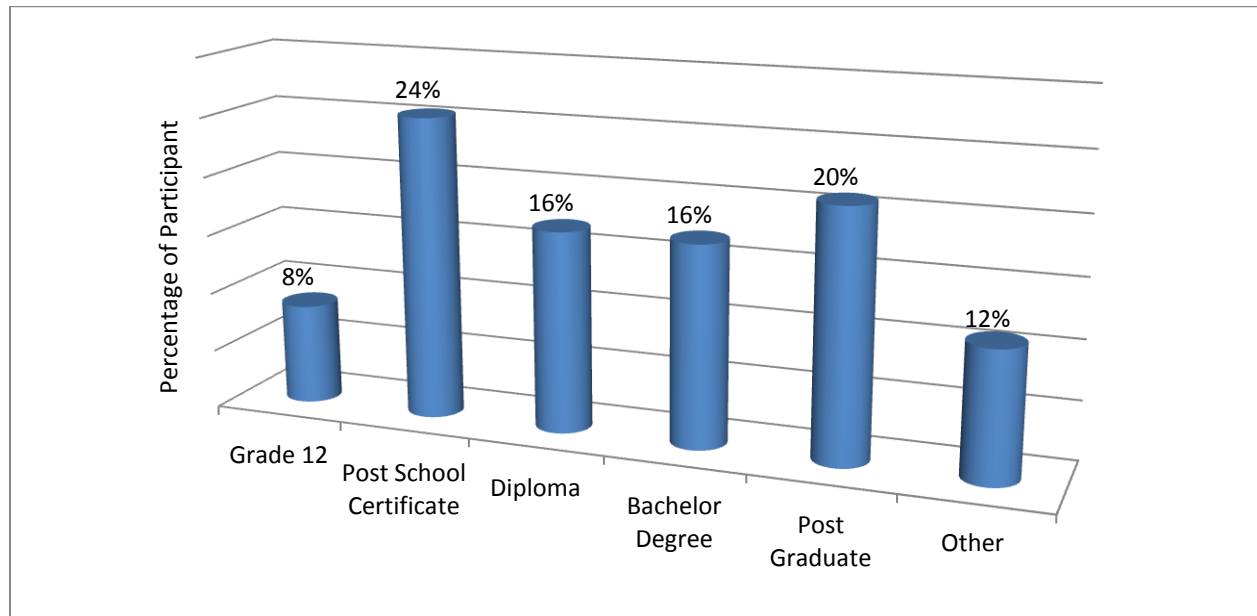
Figure 7: Participants' level of qualification

Figure 7 shows that 24% (n=12) of the respondents possess post school certificates, where as 16% (n=8) have studies up to the diploma and Bachelor degrees levels respectively. Those who are in possession of post graduate certificate qualifications constituted 20% (n=10), while 12% (n=6) have other professional qualifications and grade 12 levels respectively.

4.2.4 Employment statuses of the participating members

The study also established the employment status of the participants. Figure 8 below presents the results.
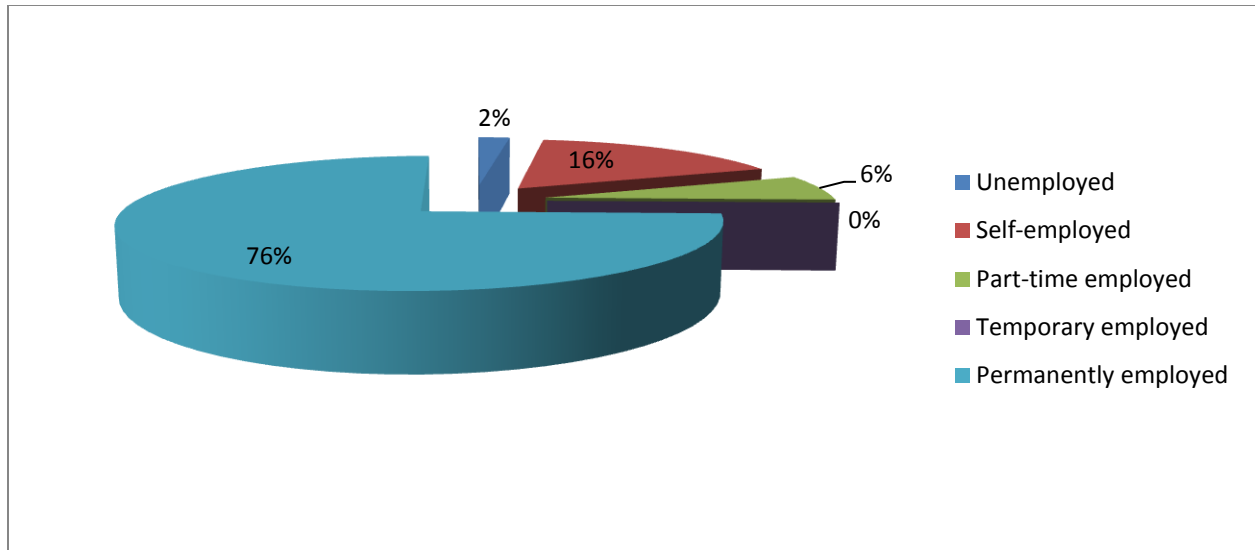
Figure 8: Employment statuses of the participants

The results above shows that 76% (n=38) of the respondents were permanently employed, whereas 16% (n=8) were self-employed, 6% (n=3) part-time employed and 2% (n=1) were unemployed. None of the respondents were employed on temporary basis.

4.2.5 Participants' occupation type

The study further brought forth the type of occupations of the participants. Figure 9 below presents the results.

The results in figure 9 above shows that 64% (n=32) of the participants in the study were employed in the private sector, 18% (n=9) were shop assistants and bank employees respectively while Lecturers constituted 2% (n=1) of the participants.

4.2.6 Number of dependents per participating member

The study also elicited the number of dependents per each participating member. Figure 10 illustrates the results.
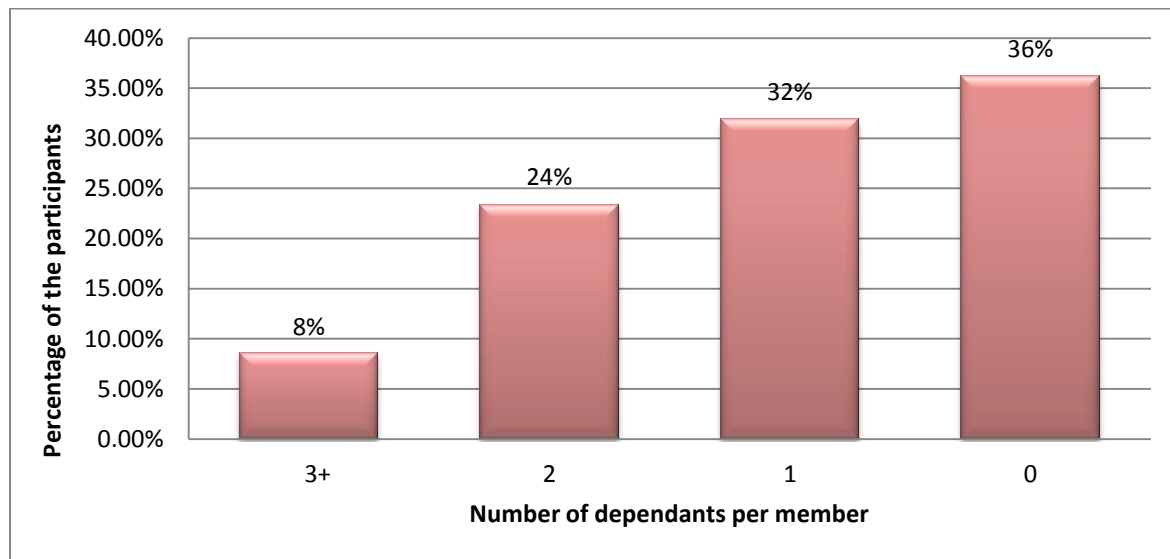
Figure 10: Number of dependants per participants

Based on the results presented on the figure below, 36% (n=18) of the participants have no dependants on their medical aid. 32% (n=16) have one dependants, 24% (n=12) have two dependants, where as 8% (n=4) of the respondents have more than three dependants on their medical aid.

4.2.7 Duration of members

The study further obtained the membership duration the participating members have been on medical aid. The figure 11 presents the results.
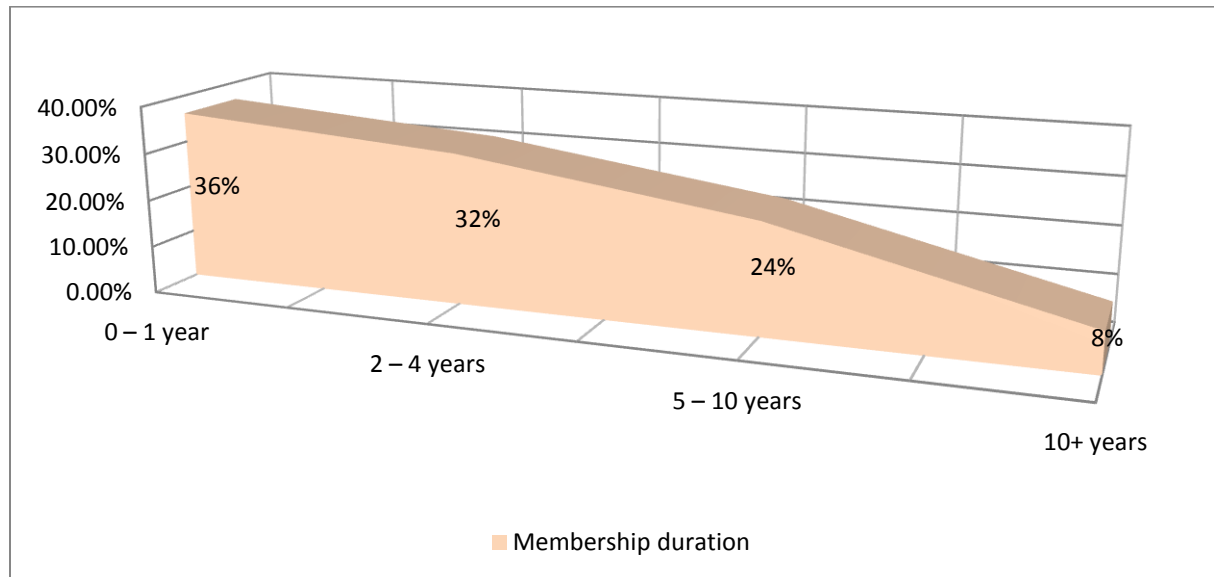
Figure 11: Membership duration

The results pointed out that 36% (n=18) of the participants have been on medical aid for less than a year, while 32% (n=16) have been members to a medical aid for between 2-4 years. Furthermore, 24% (n=12) of the respondents have had medical aid cover for 5 -10 years, whereas 8% (n=4) have been on medical aid funds for over 10 years consecutively.

4.3 TREND OF THE MEDICAL AID FUNDS COST

One of the study objectives was to establish and describe the trend in Medical Aid funds cost for the period 2009 -2013. Table 3 below presents the mean monthly contribution premiums per member, representing the medical aid cost for the period under study.

Table 3 Trend of the Medical Aid Funds cost

	Contribution Premium 2009 N$	Contribution Premium 2010 N$	Contribution Premium 2011 N$	Contribution Premium 2012 N$	Contribution Premium 2013 N$
Mean monthly contribution per member	1,240.87	1,498.30	1,588.59	1,669.26	1,839.24
% change in premiums	-	17.2%	5.7%	4.8%	9.2%

The table 3 above shows that there has been a general increase in the average monthly contribution premiums payable by members of private Medical Aid Funds in Namibia between the years 2009 to 2013. Table 3 shows that the highest increase in the contribution premium was observed in 2010 recording a 17.2% increase from N$1,240.87 in 2009 to N$1,498.30. The 2011 premiums increased by 5.7% to N$1,588.59 while in 2012 the average premium per member increased by 4.8% to N$1,669.26. In 2013 the average monthly premium per member increased by 9.2% to N$1,839.24. These findings concur with the findings of (Erasmus & Fourie, 2014) who stated that healthcare premiums were likely to be affected by inflation and were likely to be affected by many factors that would lead to the clients contributing more each year.

The study further tried to establish the diagrammatic trend of the Medical Aid costs for the period under study. Table 4 below presents the results. These findings concur with the findings

of (Bihari, 2014) who noted that that healthcare cost was a composition of the members' health insurance/medical aid premiums, out-of-pocket expenses and co-payments and other factors influencing the economy. Buhari further articulate that if any of these factors change, they are likely to change the premium contributions of the members. On this note (Still, 2013) stated that increases in day to day services that are needed by the members is likely to increase the monthly premiums of these members daily.
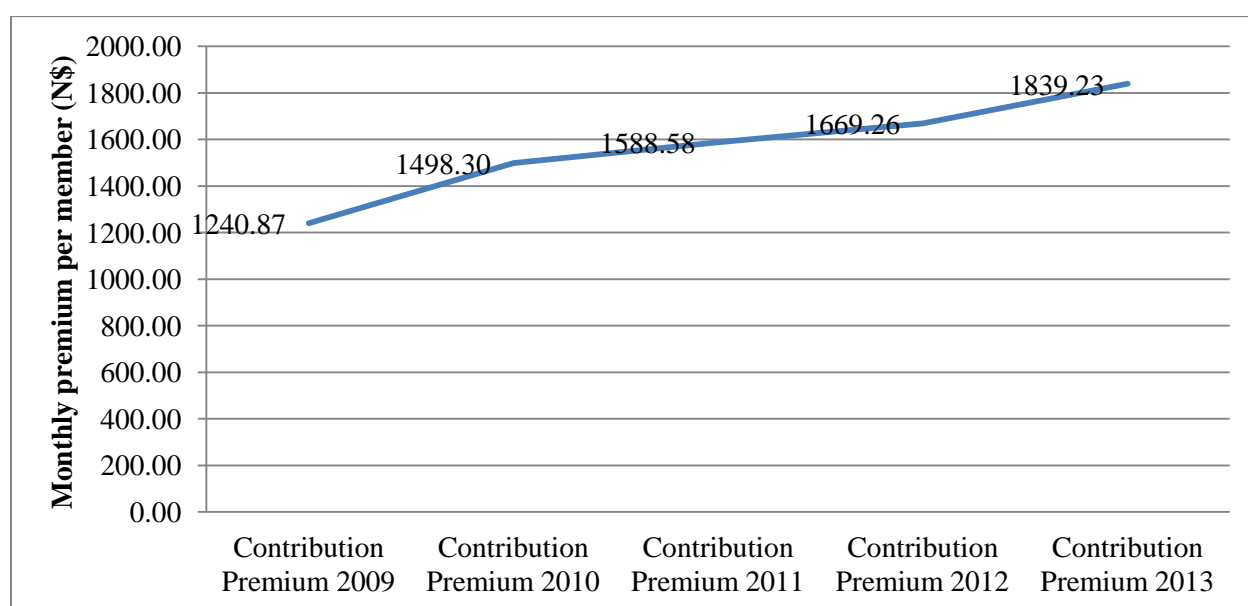
Figure 12: Mean monthly contribution premium per member

Figure 12 further confirms the general inflation tends recorded in table 4. The trends in the contribution premiums per member from 2009 to 2013 show a gradual increase which is an line with the recorded inflation trends for the same period. Figure 12 above depicts an upwards trend in the average monthly contribution premium payable by members of Medical Aid Funds between the period 2009 to 2013. This was found to be in line with the expectation of the study as well as (NAMFISA, 2013) who reported that the cost of Private Medical Aid has been increasing at a steady rate during the past decade.

In order to further justify the trends in the medical aid cost for the period 2009-2013, the study established the correlation values of the amounts by year from 2009 to 2013. Table 5 below presents the correlation matrix between the monthly contribution premiums.

Table 4: Correlation Matrix for the annual contribution premiums

Correlation Matrix						
	Description	**Contribution Premium 2009**	**Contribution Premium 2010**	**Contribution Premium 2011**	**Contribution Premium 2012**	**Contribution Premium 2013**
Contribution Premium 2009	Pearson Correlation	1	.994**	.990**	.986**	.981**
	Sig. (2-tailed)		0	0	0	0
	N	19	19	19	19	19
Contribution Premium 2010	Pearson Correlation	.994**	1	.994**	.995**	.979**
	Sig. (2-tailed)	0		0	0	0
	N	19	31	31	31	31
Contribution Premium 2011	Pearson Correlation	.990**	.994**	1	.995**	.987**
	Sig. (2-tailed)	0	0		0	0
	N	19	31	39	39	39
Contribution Premium 2012	Pearson Correlation	.986**	.995**	.995**	1	.986**
	Sig. (2-tailed)	0	0	0		0
	N	19	31	39	46	46
Contribution Premium 2013	Pearson Correlation	.981**	.979**	.987**	.986**	1
	Sig. (2-tailed)	0	0	0	0	
	N	19	31	39	46	47
** Correlation is significant at the 0.01 level (2-tailed).						
* Correlation is significant at the 0.05 level (2-tailed).						

Table 5 above shows that the correlation for the medical aid contribution for 2009 and 2010 was 0.994 which shows a strong positive correlation significant at 0.01 levels (2-tailed). The correlation between the 2009 and 2011 amounts was 0.990, which still shows a strong positive correlation significant at 0.01 levels (2-tailed). The correlation between the 2009 and 2012 amounts was 0.986 showing a strong positive correlation significant at 0.01 levels (2-tailed).

Between the 2009 and 2013 contribution premiums, the correlation was 0.981, still showing a strong positive correlation significant at 0.01 levels (2-tailed).

The correlation between the 2010 and 2011 contribution premiums was 0.994, showing a strong positive correlation significant at 0.01 levels (2-tailed). The correlation between the 2010 and 2012 amounts was 0.995, which still shows a strong positive correlation significant at 0.01 levels (2-tailed). The correlation between the 2010 and 2013 amounts was 0.979, which still shows a strong positive correlation significant at 0.01 levels (2-tailed).The correlation between the 2011 and 2012 amounts was 0.995, which shows a strong positive correlation significant at 0.01 levels (2-tailed). The correlation between the 2011 and 2013amounts was 0.987, which shows a strong positive correlation significant at 0.01 levels (2-tailed). The correlation between the 2012 and 2013 amounts was 0.986, which still shows a strong positive correlation significant at 0.01 levels (2-tailed). These correlation values are supporting that there was a strong positive correlation between the premiums paid each year. These values further confirm the previously alluded claims with the premiums tend to increase annually as other factors also increase in the economy.

4.4 FACTORS DRIVING THE ANNUAL INCREASES IN MEDICAL AID COST

Another objective of the study was investigate what drives the cost of Medical aid by gathering the factors considered by the Medical Aid Funds in determining annual increases in monthly medical aid premiums. Table 6 below presents the factors that drive cost of Medical Aids.

Table 5 Factors driving the annual medical aid cost

Industry response on factors driving the annual increases in costs of Medical Aid (N=25)		
	Frequencies (n)	**Percentage**
Medical Aid Fund Operational Expenses		
Benefit Claims	8	32%
Administration fees	3	12%
Operational cost	1	4%
Staff Salaries	1	4%
Audit & Actuarial Fees	1	4%
Sub-total	**14**	**56%**
Changes in demographic factors		
Ageing	2	8%
Gender	2	8%
Sub-total	**4**	**16%**
Socio-economic Factors		
Salary increments	1	4%
Disease out break	1	4%
lifestyle e.g. gym	1	4%
Sub-total	**3**	**12%**
Changes in Macroeconomic – inflation, CPI		
Inflation	1	4%
CPI	1	4%
Total	**2**	**8%**
Changes in membership structure (number of dependants)		
Family size (number of dependant per member)	1	4%
Sub-total	**1**	**4%**
Technological changes		
Use of advanced technology	1	4%
Sub-total	**1**	**4%**
Total	**25**	**100%**

The result in table 6 shows that the factors considered in determining annual increases in monthly Medical Aid premiums can be sub-divided into six categories, namely: Medical Aid Funds operation Expenses; Change in demographic factors of the Medical Aid Fund; Socio-economic Factors; Change in Macro-economic factors; Change in membership structure of the Medical Aid Fund; and Technological changes. The category of Medical Aid Fund's operational expenses was considered to be the major contributing factor toward increases in cost, constituting 56% (n=14) of the responses; and the underlying factors such Claims (Benefit utilization), administration fees, operational fees, staff salaries and audit fees were highlighted. Out of the underlying factors, Benefit utilization (Claims) was named as the major driving factors of medical aid cost increments at 32% (n=8) of the responses, followed by administration fees at 12% (n=3) while the rest constituted 4% (n=1) of the responses respectively.

Changes in the demographics of the Fund was considered the second leading factors in increase in Medical Aid cost at 16% (n=4), of which the underlying factors such ageing of the Fund and gender distribution of the Fund members were constituted 8% (n=2) of the respondents respectively. The industry highlighted Changes in Macroeconomic factors such as annual inflation, and the Consumer Price Index (CPI) as the third factor leading to increase in the cost of Medical Aid confirmed by 8% (n=2) of the respondents. The last two categories considered to having impact on cost of Medical Aid were: changes in the membership structure of the Fund as well as the technological changes, both listed by 4% (n=1) of the respondents respectively.

The study then tried to establish whether these factors contributing to increases in medical aid costs were uniformly distributed (having same impact). A Chi-square test for goodness of fit was

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used to establish this uniformity assumption in the distribution of these factors. A chi-square test gave the following results ($\chi_{Calculated} = 59.99; \chi_{S\tan dard} = 11.0705; df = 5$, p-value <0.05) which lead to the rejection of the null hypothesis which claimed that the factors were uniformly distributed in favor of the alternative that claimed an unequal distribution of the factors impacting on annual increments in cost of private medical aid. These results suggest that the extent to which these factors influencing the increase in cost are not the same. These results further concur with the findings of MoHSS (2013) who noted that the rate at which medical aid funds are increasing their prices differ from one economic environment to another. On this note (Still, 2013) stated that on the South African environment where most of the employees are public servants who relies on government subsidized medical aid funds, the people utilizing private medical aid schemes are heavily affected by high prices, since the greater number of people are utilizing government medical aid fund.

With regards to benefit utilization (claims) which contributed the most towards annual increments in prices of private aid funds, the study validated this postulate by analyzing the consolidated industry claims ratio (the amount of total annual benefits utilization expenses expressed as a percentage of total annual contribution income) for the period 2009 to 2013. Figure 13 presents these results.
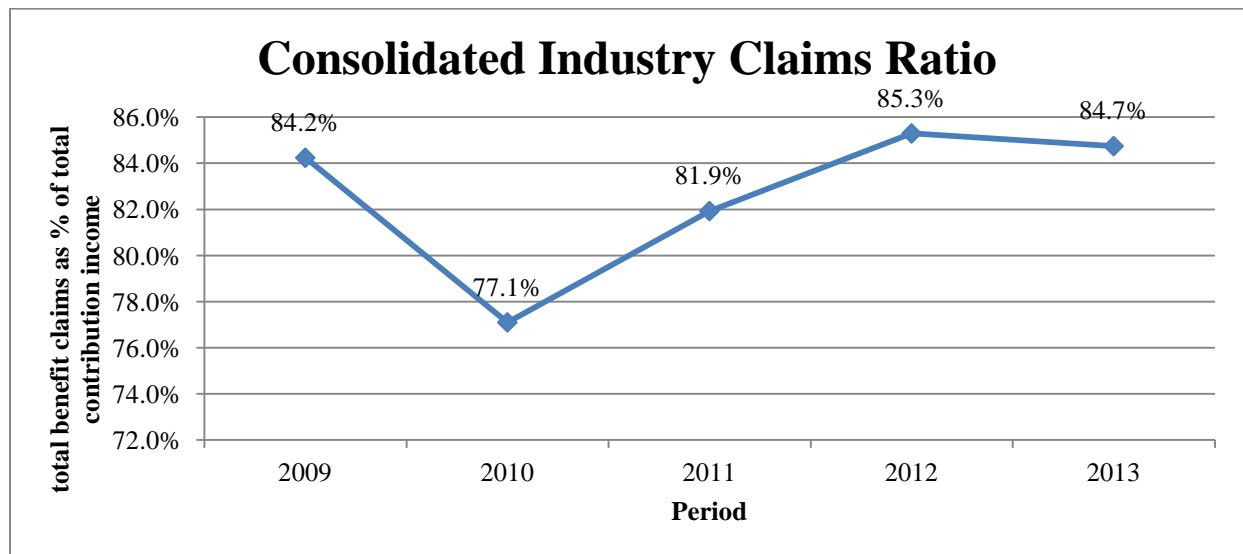
Figure 13: Consolidated industry claims ratio 2009-2013

The results indicate the Medical Aid Funds have spent more 77.0% of their total income towards benefit utilization during the period 2009-2013. The claims ratio of 84.2% was reported in 2009 were as the ratio for 2010 dropped to 77.1% in 2011 the claims ratio increased to 81.9% and further to 85.3% in 2012. The benefit utilization ratio for 2013 constituted 84.7% of the total annual contributions income. These results collaborate with findings of (Levin-Scherz, 2010) who noted that medical aid funds are non-profit making organizations and generally spend more than 80% of their income towards paying for medical aid benefits services while the remaining 20% is spent toward administration, operation and maintenance of the schemes.

In order to better understand the medical aid benefits and expenditures, the study further established the different categories of benefit utilization, toward which the claims were paid for. Table 7 below presents the results.

Table 6: Benefit utilization per category

Benefit Category	Expenditure (N$ '000)								
	2009	2010	% change	2011	% change	2012	% change	2013	% change
Hospitalization	43,922,957	52,534,319	16.4%	56,239,410	6.6%	55,306,463	-1.7%	75,889,165	27.1%
General Practitioners	21,673,285	17,304,275	-25.2%	20,951,389	17.4%	21,623,609	3.1%	22,804,717	5.2%
Pharmacies/Medications	20,015,331	20,770,260	3.6%	23,567,502	11.9%	28,780,476	18.1%	32,698,603	12.0%
Medical Specialists	14,530,251	14,097,751	-3.1%	15,998,635	11.9%	20,925,507	23.5%	23,646,383	11.5%
Auxiliary Services	6,875,766	7,194,024	4.4%	8,233,303	12.6%	5,747,889	-43.2%	11,439,732	49.8%
Pathologists	9,541,434	7,865,795	-21.3%	10,730,330	26.7%	7,104,633	-51.0%	10,459,856	32.1%
Optometrists	3,282,926	6,260,584	47.6%	11,752,158	46.7%	8,082,184	-45.4%	10,131,485	20.2%
Dentists	5,666,675	7,152,466	20.8%	7,826,196	8.6%	8,887,353	11.9%	9,534,028	6.8%
Radiologists	5,691,216	7,296,517	22.0%	8,651,050	15.7%	11,672,510	25.9%	4,189,223	-178.6%
Psychiatric Institutions	684,488	803,940	14.9%	897,385	10.4%	953,037	5.8%	819,375	-16.3%
Ambulance and Emergency services	175,070	75,052	-133.3%	11,782	-537.0%	7,422	-58.7%	2,227	-233.3%
Step-down Facilities	1,634,067	1,384,140	-18.1%	1,806,145	23.4%	2,438,772	25.9%	2,877,139	15.2%
Other (unspecified)	3,039,080	6,387,136	52.4%	3,945,210	-61.9%	6,102,123	35.3%	19,381,318	68.5%
Total	**136,732,545**	**149,126,259**	8.3%	**170,610,495**	12.6%	**177,631,979**	4.0%	**223,873,252**	20.7%

Table 7 shows that that generally more than 70.0% the total annual claims were paid towards the five major claims categories which are Hospitalization, Medication, General practitioners, Medical Specialists and Auxiliary services. In 2013 hospitalization constituted the highest percentage of medical aid benefit utilization and constituted 33.9% of total claims, followed by Medication at 14.6%, Medical Specialists at 10.6%, and General Medical Practitioners at 10.2% and Auxiliary services constituting 5.1% of total claims. These findings are in line with the 2015

annual report of the South African Council of Medical Aid Scheme, which highlighted that hospital expenditures accounted for 41.6% of the total healthcare benefit claims paid in 2014, followed by Medicines and Medical Specialists with 14.5% and 6.7% respectively.

Bearing in mind the escalating claims ratio, it is deemed justifiable for the medical aid funds to continuously adjust the annual premiums in order to sustain their operations as stated by (Smit, 2013) that the medical aid monthly premiums need to be reviewed continuously in line with the inflation rates.

4.5 THE IMPACT OF MEDICAL AID PREMIUM INCREASES ON PUBLIC ACCESS TO MEDICAL AID BENEFITS

	2009	2010	2011	2012	2013
Increase in Contribution premiums	-	17.2%	5.7%	4.8%	9.2%
Increase in Membership (number of beneficiaries)	-	2.3%	4.0%	2.3%	7.3%
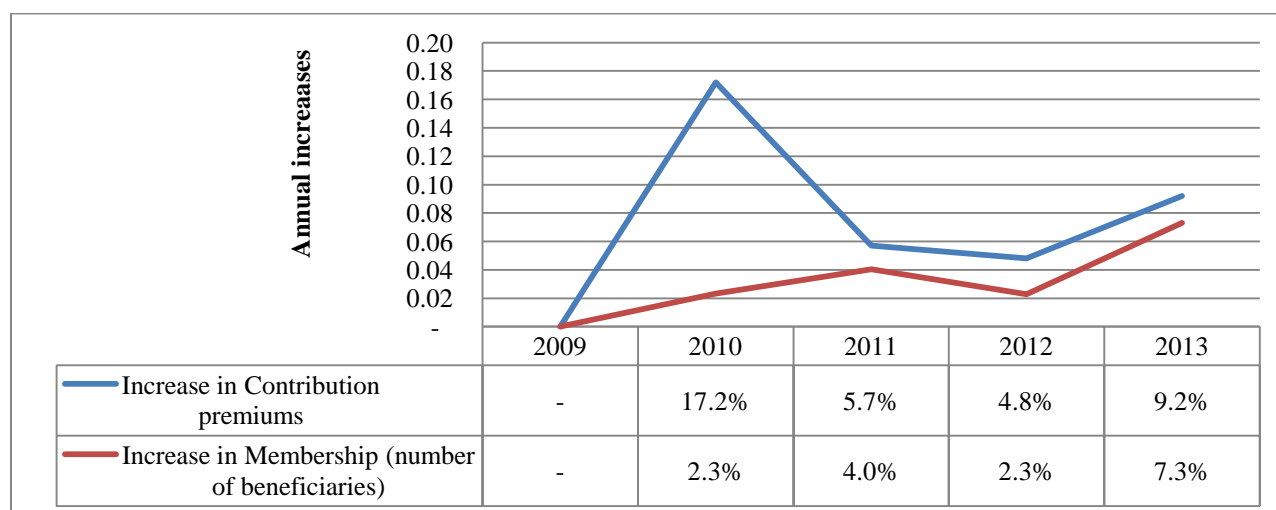
Figure 14: Comparisons of annual increases in premiums vs. annual growth in membership (number of beneficiaries)

The results in the figure 14 above indicate that the cost of medical aid in terms of contribution premiums has been increasing at fluctuating rates between the years 2009 to 2013. At the same time, there has been a positive growth in membership of the Medical Aid Funds during the same period. The premiums increased by 17.2% between 2009 and 2010 while membership grew by 2.3% during the period. From 2010 to 2011, the premiums increased on average by 5.7% while membership grew by 4.0%. Between the year 2011 and 2012 premiums increased by 4.8% and membership increased by 2.3%, whereas between 2012 and 2013 the premiums increased by 9.2% while membership grew by 7.3%. The results are in contrast with the general public perceptions and assumptions that the increase in monthly premium would inhibit affordability and hence access to medical aid cover and one would expect increase in contribution premiums to have a negative impact on membership growth. In addition to that these findings contradict

with the findings of (Smit, 2014: Bihari, 2014) who noted that increase in monthly premiums leads to a decrease in membership since most people won't afford to pay the premiums.

4.6 THE INDUSTRY'S OPINIONS ON THE MITIGATION STRATEGIES TO CURB THE HIGH AND ESCALATING COST OF MEDICAL AID IN NAMIBIA

Lastly, the study aimed at investigating possible strategies that could be used to curb the escalating costs of private healthcare in Namibia by gathering opinions from the key players from the Medical Aid funds industry. The table below presents a summary of the industry's opinion on the possible mitigation measures to contain the cost of private Medical aids low.

Table 7 industry opinion on the possible mitigation strategies

Industry opinions on the possible mitigation strategies to curb high cost of Private Medical Aid (N=25)		
Mitigation strategy	**Frequency**	**Percentage of respondents**
Government subsidization to all private Medical Aid Funds to cushion inflation	24	21.8%
Mandatory National Health Insurance Fund	21	19.1%
Educate members to live health lifestyle	19	17.3%
Introduce Benchmark Tariffs to prevent service providers from overcharging	18	16.4%
Price regulation - service providers, medicine and hospitals	15	13.6%
Educate members against the misuse of medical aid	13	11.8%

Table 9 shows that 24 participants suggested subsidization of all private medical funds as a solution to curb the increases in medical premiums, 21 suggested the introduction of a mandatory

national healthcare fund. Nineteen members suggested living a healthy lifestyle as a solution to escalating costs of medical aid premiums, 18 suggested the introduction of a benchmark Tarrifs to prevent service providers from overcharging their clients, and 15 suggested the regulation of prices and charges for services charged by service providers as a solution to curb these escalating costs. Finally, 13 suggested the education of the members against misuse of medical funds as a solution to minimize the increases in monthly premiums. The findings above corroborate with the suggestions made by (MoHSS, 2013) who pinpointed on some of these factors as being useful in keeping the medical aid premiums as low as possible.

4.7 SUMMARY

This chapter presented the findings of the study. The first part presented the demographic information of the respondents, while the second part presented the general trends in the medical aid costs followed by the factors driving the annual increases in medical aid costs. This chapter also presented the study findings on the industries opinion on the impact of the increasing medical aid premiums on the membership. The last part presented the mitigation strategies that can be used to reduce the escalating cost of the private medical aid premiums.

CHAPTER 5: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

The preceding chapter presented the findings of the study divided into various categories. Part one presented the demographics; followed by part two with the general trends in the medical aid costs followed by the factors driving the annual increases in medical aid costs. The ensuing part of the chapter presented the study findings on the industries opinion on the impact of the increasing medical aid premiums on the membership. The last part presented the mitigation strategies that can be used to reduce the escalating cost of the private medical aid premiums

This chapter presents the summary, conclusions and recommendations of the study as per the findings and discussions of the results. The recommendations for the study are classified as; those for healthcare, and those for the medical aid providers.

5.2 SUMMARY

The purpose of this study was to (1) to describe the trend in Private Medical Aid Funds Premiums during the period 2009 to 2013, (2) to identify the factors leading to annual increases in the premiums charged by the Private Medical Aid Funds in Namibia, (3) to assess the impact of increases in Medical Aid Fund Premiums on access to private healthcare in Namibia, (4) to identify possible solutions to high private medical aid cost in Namibia.

In order to achieve the aims mentioned above, the study intended to answer the following questions:

- How has the trend in the Private Medical Aid Fund cost been during the period 2009 to 2013?

- What are the factors contributing to annual increments in the Medical Aid Fund Premiums?

- Do increases in the Medical Aid Fund Premiums have impacts on access to Private healthcare in Namibia?

- What can be done to curb the increase cost of Private Medical Aid Funds in Namibia?

In order to seek answers to the stated questions, this study used the mixed method approach through the use of both qualitative and quantitative research designs. Data was collected from the medical aid service providers and from the clients who utilise the private medical aids. The study found that there is a general trend in the monthly contributions of the members of utilising the private medical aid. The study further unveiled that general increase in medical expense and inflation are the main factors contributing to these escalating cost. The study further food out that there is a general increase in membership from 2009 to 2013 an act which was contradictory to what would be expected in everyday life. A Chi-square test was used to confirm that the factors contributing to high costs were not uniformly distributed for the same period. It concluded that there was a significant difference in the distribution of these factors for the period 2009-2013. The study also revealed that subsidisation of the medical aid premiums and the introduction of price controls on medical services was likely to reduce the escalating costs of the medical aid premiums among the private medical aid members.

5.3 CONCLUSIONS

The study concluded that there is a general increase trend in the medical aid premiums for the 2009-2013 financial years and that there was also a proportional increase in membership in the same year. It was further concluded that the main drivers of the escalating premium costs are inflation and the general increases in medical services being provided in the Namibian medical system. Based on these findings it was suggested that the government of Namibia should introduce price controls to reduce escalating costs.

5.4 RECOMMENDATIONS

In light of its key findings highlighted above, this study recommends the following to various stakeholders in the teaching and learning of mathematics who may want to implement the setting of behavioural and academic goals in their learning systems:

This study concluded that the governments should introduce price control measures on Medical Aid service providers and should also subsidise all medical expenses as a way of reducing the escalating premiums being paid by members utilising the private medical aid services. It was further concluded that the introduction of Benchmark Tariffs to prevent service providers from overcharging would help to keep the monthly premiums low. The study also recommended educating the public on living healthy lives so that their utilisation of medical services will be kept at a minimum.

5.5 FURTHER RESEARCH

- There is need to find out the perceptions of the private medical aids clients on the escalating costs of medical aid premiums in Namibia.

- It is recommendable to carry out the same study on the public medical aid utilizers and compare the findings.

- Research needs to be carried out in order to find out how this general increase in medical aid premiums in the private medical aid service providers compare with other countries sharing currencies of the same value as Namibia.

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APPENDIX A: MEDICAL AID MEMBERSHIP PROFILES

		Age of the participants	Number of dependence per participant	Duration of membership in Fund	Contribution Premium 2009	Contribution Premium 2010	Contribution Premium 2011	Contribution Premium 2012	Contribution Premium 2013
N		47	47	47	19	31	39	46	47
Mean		35.38	1.13	4.1842	1240.8674	1498.2968	1588.5849	1669.2580	1839.2349
Std. Error of Mean		1.260	.179	.28830	223.38803	216.90191	189.94964	174.67234	193.14334
Mode		30	0	4.00	397.32	456.92[a]	507.18[a]	608.62[a]	651.22[a]
Std. Deviation		8.639	1.227	1.97649	973.72584	1207.65870	1186.23511	1184.68546	1324.12403
Skewness		.546	1.665	.915	.940	.902	.686	.857	.801
Std. Error of Skewness		.347	.347	.347	.524	.421	.378	.350	.347
Kurtosis		-.390	4.340	1.002	-.591	-.222	-.918	-.335	-.657
Std. Error of Kurtosis		.681	.681	.681	1.014	.821	.741	.688	.681
Percentiles	25	28.00	.00	2.4200	468.6000	500.9400	556.0400	667.2500	713.9600
	50	35.00	1.00	4.0000	1016.0000	1159.0000	1234.0000	1373.5000	1601.0000
	75	41.00	2.00	5.1700	2150.0000	2650.0000	2815.0000	2461.7750	2303.0000

a. Multiple modes exist. The smallest value is shown

APPENDIX B: QUESTIONNAIRE 1 - GENERAL PUBLIC

QUESTIONNAIRE

This research questionnaire is designed to accomplish academic purposes pursued with the University of Namibia of Namibia (Namibia Business School). Please kindly complete this questionnaire on my behalf and be advised that your safety and privacy is guaranteed, as well as withdrawal from the research can be done at anytime or part of the research without any adverse effects accruing thereof. The aim here is to establish what drives the cost of private healthcare in Namibia and the challenges faced by Medical Aid Industry in Namibia. The information from this questionnaire **will not** be presented in a way that would reveal your identity. Should you need any further clarification please do not hesitate to contact me on 0812606242.

SECTION A: DEMOGRAPHIC INFORMATION

(Complete accordingly and mark the appropriate answer with 'X')

1. Age: ....
2. Gender:

Male	
Female	

3. Occupation:..
4. Level of academic qualification

Less than Grade 12 (Primary School)	
Grade 12	
Post school Certificate	
Diploma	

Bachelor Degree	
Post Graduate	

5. Employment status

Unemployed	
Self-employed	
Part-time employed	
Temporary employed	
Permanently employed	

6. Are you registered with a Medical Aid Fund? If no proceed to question No.19

Yes	
No	

7. Please state the Name of your Medical Aid Fund ....
    ....

8. Are you the main member or dependant?

Main member	
Dependant	

9. If main member, how many dependants do you have on you medical aid? …………

10. For how long have you been a member of this Fund? ………Years………….Months
11. Is this your first Medical Aid Fund

Yes	
No	

12. If no, please indicate the reason for leaving your previous Medical Aid Fund

High monthly premiums	
Lower benefits	

High co-payments (members levy)	
Change of employment	
Other	

13. What attracted you most to your current Medical Aid Fund

Lower monthly premiums	
Low co-payments (members levy)	
Compulsory by virtue of employment	
Other	

14. What is your current monthly Medical Aid payment (Premium)?

Main member: N$----------

 Dependants: N$----------- per dependant

15. Are you satisfied with your monthly Medical Aid payment?

Yes	
No	

16. How would you rate the benefits and services offered by your Medical Aid Fund?

Excellent		Very good		Good		Fair		Poor	

17. Would you recommend anyone to join your Medical aid Fund?

Yes	
No	

18. If you had a choice to join another Fund, would you still remain with your current Medical Aid Fund?

Yes	
No	

19. Why do you currently not have Medical Aid cover? (tick all that apply)

Cannot afford insurance	
Employer does not pay for Medical Aid	
Not eligible for employer-paid Medical Aid	
Medical Aid Fund refused coverage for health reasons	
Do not need Medical Aid	
Dissatisfied with previous Medical Aid Fund or provider	
Other (please specify) …………………………………………………………………… ………………………………………………………………….	

20. How do you regard the cost of private Medical aid in Namibia?

Affordable		Moderate		Expensive		unaffordable	

21. How would you rate the Medical Aid coverage in Namibia?

Sufficient		Good		Moderate		Low		Poor	

22. How would you rate access to private healthcare in Namibia?

Sufficient		Good		Moderate		Low		Poor	

23. In your opinion what should be done to ensure every Namibian have access to medical aid cover?
....
....
....
....
....

24. Any suggestion on what should be done to overcome the high cost of private healthcare in Namibia?
....
....
....
....
....
....

APPENDIX B: QUESTIONNAIRE 2 – MEMBERS OF MEDICAL AID FUNDS

SECTION A: DEMOGRAPHIC INFORMATION

(Complete accordingly and mark the appropriate answer with 'X')

Name of your Medical Aid Fund:……………………………..

Member Category: ……………

1. Age: ....
2. Gender:

Male	
Female	

3. Occupation:..
4. Level of academic qualification

Less than Grade 12 (Primary School)	
Grade 12	
Post school Certificate	
Diploma	
Bachelor Degree	
Post Graduate	

5. Employment status

Unemployed	
Self-employed	
Part-time employed	
Temporary employed	
Permanently employed	

6. How many dependants do you have on you medical aid? …………

7. Duration of membership of this Fund? ………Years…………Months

8. What is the current monthly Medical Aid payment (Premium)?

Main member: N$----------

Dependants: N$----------- per dependant

Period	2009	2010	2011	2012	2013
Monthly Contribution premium (N$)					

APPENDIX C: FACE TO FACE INTERVIEW GUIDE

1. Is private health care essential for all Namibians?

2. How do you regard the level of medical aid coverage in Namibia at present compared to the past?

3. How do you perceive the cost of private healthcare in Namibia in terms of affordability and accessibility?

4. Statistics indicates that the monthly contribution premiums charged by the private Medical Aid Funds has been increasing on an annual basis during the past ten years. Do you concur with that?

5. What factor do you think contributes to annual increment in the Medical aid monthly premium?

6. Of this factors which is the most pertaining contributor(s) towards cost increase.

7. How these factors do influences access to private healthcare in Namibia?

8. How do you foresee the future trends with regard to access to private health care and coverage there off?

9. What methods could be applied to increase access to private healthcare for Namibian and address increase coverage/premium cost?

APPENDIX D: DATA COLLECTION TOOL FOR MEDICAL AID FUNDS

1. **Fund Information**

1.1 Fund type

Open	
Closed	

1.2 Date of Registration

....

2. **Membership data**

Period	2009	2010	2011	2012	2013
Number of principal members:					
Number of dependants:					
Number of pensioners (retired members)					
Total Beneficiaries:					

3. **Members' contributions (Medical Ai d premiums):**

What was the total annual contribution premium received the Fund during for the following periods?

Period	2009	2010	2011	2012	2013
Annual Contribution (N$)					

4. Medical Aid pricing information

4.1 Indicate the average percentage annual increase in the Medical Aid Premiums approved by

the Registrar and implemented by your fund during the following period?

Period	2009	2010	2011	2012	2013
Percentage annual increase					

4.2 List the factors taken into consideration in determining the percentage annual increase

....
....
....
....
....
....
....
....
....

5. Claims Typology:

5.1 Total number of claims received by the Medical Aid Fund from the members during the following period?

Total Number of Claims: ....

Total Amount: N$...

5.2 Provide the breakdown of the claims as per the following claim typology:

Period	2009	2010	2011	2012	2013
Amounts per the Claims Typology					
Hospitalization					
General Practitioners					
Pharmacies/Medications					
Specialists					
Auxiliary Services					
Pathologists					
Optometrists					
Dentists					
Radiologists					
Psychiatric Institutions					
Other					
Total					